

ORDER

8120.2B

PRODUCTION APPROVAL AND SURVEILLANCE PROCEDURES



Date: 1/31/01

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

**Distribution: A-W (IR/FS/VN) -3; A-X (CD/FS) -3; A-FFS-0 (LTD);
A-FAC-0 (ALL); AMA-220 (10 copies); AMA-250 (10 copies);
AFS-600 (10 copies); AVR-20 (ALL); AEU-100/200; A-FDR-1D**

Initiated by: AIR-200

FOREWORD

This order was prepared to provide guidance for Aircraft Certification Service personnel in the accomplishment of certain agency responsibilities. These include the evaluation, approval, and surveillance of the production activities of manufacturers and their suppliers producing products, parts, and appliances in accordance with Title 14 Code of Federal Regulations (14 CFR), part 21, Certification Procedures for Products and Parts (part 21). The guidance in this order relates to the four basic types of production approvals and one associated engineering approval that are issued by the Federal Aviation Administration (FAA):

1. Production Certificate (PC).
2. Approved Production Inspection System (APIS).
3. Parts Manufacturer Approval (PMA).
4. Technical Standard Order (TSO) authorization.
5. Delegation Option Authorization (DOA) (an engineering approval).

To avoid repetition, the arrangement of material is such that common chapters are devoted to functions that are applicable to all five types of approvals. The procedures in such chapters are described in detail and may cover more than is actually applicable in any individual circumstance. For example, all items may be applicable to a PC holder, but not a PMA holder. Where such is the case, the inspector should be guided by those items that are appropriate to the production approval involved.

/s/

Frank P. Paskiewicz
Manager, Production and
Airworthiness Division

TABLE OF CONTENTS

CHAPTER 1. INTRODUCTION

| <i>Paragraph</i> | <i>Page</i> |
|---------------------------------------|-------------|
| 1. Purpose. | 1 |
| 2. Distribution. | 1 |
| 3. Cancellation. | 1 |
| 4. Explanation of Major Changes. | 1 |
| 5. Acronyms. | 2 |
| 6. Definitions. | 4 |
| 7. Forms. | 6 |
| 8. Relation to Other Directives. | 6 |
| 9. Information Currency. | 6 |
| 10. Deviations. | 6 |
| 11. Electronic Signature. | 6 |
| 12.-19. Reserved. | 6 |

CHAPTER 2. PRODUCTION CERTIFICATION (14 CFR PART 21, SUBPART G)

| | |
|---|----|
| 20. General. | 7 |
| 21. Application. | 8 |
| 22. Testing Aircraft, Engines, Propellers. | 11 |
| 23. PC Holder's Responsibility. | 11 |
| 24. PC Holder's Location. | 12 |
| 25. Designated Manufacturing Inspection Representative (DMIR) or Organizational Designated Airworthiness Representative (ODAR). | 13 |
| 26. FAA Surveillance. | 13 |
| 27. Enforcement Actions. | 15 |
| 28. Distribution of Production Certification Documents. | 16 |
| 29. Supplier Surveillance. | 16 |
| 30. Records and Reporting Requirements. | 16 |
| 31.-34. Reserved. | 16 |

CHAPTER 3. PRODUCTION CERTIFICATION BOARD (PCB)

| | |
|---------------------------------------|----|
| 35. General. | 17 |
| 36. PCB Member Responsibilities. | 17 |
| 37. Conduct of the Board. | 18 |
| 38. PCB Minutes. | 19 |
| 39. PCB Adjournment. | 20 |

CHAPTER 4. PRODUCTION UNDER A TYPE CERTIFICATE ONLY (14 CFR PART 21, SUBPART F)

| | |
|---|----|
| 40. General. | 21 |
| 41. FAA Conformity Determinations During the Six-Month Period. | 22 |

| <i>Paragraph</i> | | <i>Page</i> |
|------------------|--|-------------|
| 42. | Application for an APIS. | 22 |
| 43. | Procedure for APIS Issuance. | 22 |
| 44. | APIS Approval Letter. | 23 |
| 45. | Testing Aircraft, Engines, Propellers. | 24 |
| 46. | TC Holder's Responsibility Under 14 CFR Part 21, Subpart F. | 24 |
| 47. | Facility Location. | 25 |
| 48. | Designated Manufacturing Inspection Representatives (DMIR). | 25 |
| 49. | Surveillance. | 25 |
| 50. | Enforcement Actions. | 25 |
| 51. | Supplier Surveillance. | 25 |
| 52.-57. | Reserved. | 25 |

CHAPTER 5. PARTS MANUFACTURER APPROVAL (PMA) (SPECIAL GUIDANCE)

| | | |
|---------|---|----|
| 58. | General. | 27 |
| 59. | Marking Detail Parts of PMA Assemblies. | 27 |
| 60. | Enforcement. | 27 |
| 61. | Identification Marking of Replacement and Modification Parts Produced Pursuant to the Enhanced Enforcement Program (EEP) as Published in Federal Register Notice, February 27, 1995. | 27 |
| 62.-69. | Reserved. | 28 |

CHAPTER 6. TECHNICAL STANDARD ORDER (TSO) AUTHORIZATION (14 CFR PART 21, SUBPART O)

| | | |
|-----|--|----|
| 70. | General. | 29 |
| 71. | Application. | 30 |
| 72. | TSO Authorization Issuance Procedure. | 30 |
| 73. | Facility Approval Audit. | 31 |
| 74. | TSO Letter of Authorization. | 31 |
| 75. | TSO Authorization Holder's Responsibility. | 31 |
| 76. | TSO Authorization Holder's Facility Location. | 32 |
| 77. | Designated Manufacturing Inspection Representatives (DMIR). | 32 |
| 78. | Surveillance. | 32 |
| 79. | Enforcement Actions. | 33 |
| 80. | Supplier Surveillance. | 33 |

CHAPTER 7. DELEGATION OPTION AUTHORIZATION (DOA) (14 CFR PART 21, SUBPART J)

| | | |
|-----|----------------------------------|----|
| 81. | General. | 35 |
| 82. | Applicability. | 35 |
| 83. | Maintenance of Eligibility. | 35 |
| 84. | Surveillance/Enforcement. | 35 |

CHAPTER 8. SUPPLIER SELECTION, SURVEILLANCE, AND EVALUATION

| <i>Paragraph</i> | | <i>Page</i> |
|------------------|---|-------------|
| 85. | General. | 37 |
| 86. | Discussion. | 37 |
| 87. | Exclusions. | 38 |
| 88. | Audits. | 38 |
| 89. | Responsibility of Certificate Management MIDO. | 39 |
| 90. | Supplier Surveillance Selection Process. | 39 |
| 91. | Hand-off Procedure. | 40 |
| 92. | Responsibility of Geographic MIDO. | 41 |
| 93. | Supplier Reassessment Process. | 42 |
| 94. | Direct Shipment by Suppliers. | 42 |
| 95. | CAA Assistance. | 43 |
| 96. | Geographic Responsibilities for International Supplier Surveillance. | 43 |
| 97. | Oversight of U.S. Suppliers to Foreign Manufacturers, Repair Stations, or Air Carriers. | 44 |
| 98.-119. | Reserved. | 44 |

CHAPTER 9. INVESTIGATION OF SERVICE DIFFICULTIES

| | | |
|-----------|--------------------------------------|----|
| 120. | General. | 45 |
| 121. | Investigation. | 45 |
| 122. | Corrective Action. | 46 |
| 123. | Reporting Service Difficulties. | 46 |
| 124. | Foreign Manufacturers. | 47 |
| 125.-130. | Reserved. | 47 |

CHAPTER 10. IMPORT

| | | |
|-----------|---|----|
| 131. | General. | 49 |
| 132. | Aircraft. | 49 |
| 133. | Propellers/Engines. | 50 |
| 134. | Approval of Materials, Parts, and Appliances. | 50 |
| 135. | Service Difficulties-Import. | 50 |
| 136. | Non-Certified Replacement or Modification Parts. | 50 |
| 137.-140. | Reserved. | 50 |

**CHAPTER 11. REVIEWING AND APPROVING QUALITY CONTROL/INSPECTION
SYSTEM DATA**

| | | |
|-----------|--|----|
| 141. | General. | 51 |
| 142. | Data Review. | 51 |
| 143. | Review of Changed Data. | 51 |
| 144. | Data Approval/Acceptance Standards. | 51 |
| 145.-150. | Reserved. | 52 |

CHAPTER 12. RECORDS AND REPORTING REQUIREMENTS

| <i>Paragraph</i> | | <i>Page</i> |
|------------------|---|-------------|
| 151. | General. | 53 |
| 152. | Production Project Control, FAA Form 8120-2. | 53 |
| 153. | Production Certification Projects Status Listing, FAA Form 8120-6. | 54 |
| 154. | Conformity Inspection Record (CIR), FAA Form 8100-1. | 54 |
| 155. | Request for Conformity (RFC), FAA Form 8120-10. | 54 |
| 156. | Record of Findings/Observations, FAA Form 8100-6. | 54 |
| 157. | Surveillance Activity Report, FAA Form 8120-14. | 55 |
| 158. | Release of Information to the Public. | 56 |
| 159.-164. | Reserved. | 56 |

CHAPTER 13. AUDITS

| | | |
|-----------|---|----|
| 165. | General. | 57 |
| 166. | PI Audit. | 57 |
| 167. | DO Audit. | 57 |
| 168. | Geographical Responsibility. | 57 |
| 169. | Standards. | 58 |
| 170. | Recording Findings and Observations. | 58 |
| 171. | Corrective Action. | 58 |
| 172.-184. | Reserved. | 59 |

CHAPTER 14. PRODUCT AUDIT FUNCTION

| | | |
|-----------|------------------------------------|----|
| 185. | Purpose. | 61 |
| 186. | General. | 61 |
| 187. | Definitions. | 61 |
| 188. | Selection of Characteristics. | 61 |
| 189. | Categories of Audits. | 61 |
| 190. | Audit Criteria. | 62 |
| 191. | Recording Audit Results. | 63 |
| 192.-195. | Reserved. | 63 |

**CHAPTER 15. MANUFACTURER'S MAINTENANCE FACILITY (MMF)
(14 CFR PART 145, SUBPARTS A AND D)**

| | | |
|-----------|-----------------------------------|----|
| 196. | General. | 65 |
| 197. | Initial Certification. | 65 |
| 198. | Personnel. | 67 |
| 199. | Records and Related Reports. | 67 |
| 200. | Surveillance. | 67 |
| 201. | Enforcement. | 68 |
| 202. | MMF Procedure. | 68 |
| 203.-210. | Reserved. | 68 |

CHAPTER 16. EXTENSION OF A PRODUCTION APPROVAL WITHIN THE UNITED STATES

| <i>Paragraph</i> | | <i>Page</i> |
|------------------|-----------------------------------|-------------|
| 211. | General. | 69 |
| 212. | Responsibilities of the PAH. | 69 |
| 213. | Responsibilities of the DO. | 70 |

APPENDIX 1. SAMPLE FAA DOCUMENTATION

| | | |
|------------|---|----|
| Figure 1. | Sample FAA Form 8110-12, Application for Type Certificate, Production Certificate, or Supplemental Type Certificate. | 1 |
| Figure 2. | Sample Production Certification Application and Acknowledgment. | 2 |
| Figure 3. | Sample FAA Form 8120-4, Production Certificate. | 3 |
| Figure 4. | Sample FAA Form 8120-3, Production Limitation Record. | 4 |
| Figure 5. | Sample Transmittal of Production Certificate. | 5 |
| Figure 6. | Sample Quality Control/Inspection Data Approval. | 6 |
| Figure 7. | Sample Letter of Authorization for Extension of 14 CFR § 21.123(c) Six-Month Limitation. | 7 |
| Figure 8. | Sample Letter for Approving a Manufacturer's Production Inspection System. | 8 |
| Figure 9. | Sample FAA Form 8120-2, Production Project Control. | 11 |
| Figure 10. | Sample FAA Form 8100-1, Conformity Inspection Record (Front & Back). | 12 |
| Figure 11. | Forms Listing. | 14 |
| Figure 12. | Sample FAA Form 8000-4, Air Agency Certificate. | 15 |
| Figure 13. | Sample FAA Form 8120-10, Request for Conformity. | 16 |

APPENDIX 2. PREPARATION INSTRUCTIONS FOR FAA FORM 8120-14 1

| | | |
|-----------|-------------------------------|---|
| Figure 1. | Sample FAA Form 8120-14. | 3 |
|-----------|-------------------------------|---|

APPENDIX 3. PREPARATION INSTRUCTIONS FOR FAA FORM 8100-6, RECORD OF FINDINGS/OBSERVATIONS 1

| | | |
|-----------|-------------------------------------|----|
| Figure 1. | Block 7 Entries (Finding). | 2 |
| Figure 2. | Block 8 Entries (Observation). | 5 |
| Figure 3. | Sample FAA Form 8100-6. | 11 |

APPENDIX 4. PROCESS FOR IDENTIFYING FINDINGS AND OBSERVATIONS DURING A PI OR DO AUDIT 1

| | | |
|-----------|--|---|
| Figure 1. | PC & TSO Authorization Holders, Associate Facilities of PC & TSO Authorization Holders, and DOA Facilities. | 1 |
|-----------|--|---|

| <i>Paragraph</i> | | <i>Page</i> |
|--------------------|---|-------------|
| Figure 2. | Suppliers to PC & TSO Authorization Holders, and to Associate Facilities of PC & TSO Authorization Holder. | 2 |
| Figure 3. | APIS & PMA Holders, and Associated Facilities of APIS & PMA Holders. | 3 |
| Figure 4. | Suppliers to APIS & PMA Holders, and to Associated Facilities of APIS & PMA Holders. | 4 |
| Figure 5. | Satellite MMF's. | 5 |
| APPENDIX 5. | PREPARATION INSTRUCTIONS FOR FAA FORM 8120-6, PRODUCTION CERTIFICATION PROJECTS STATUS LISTING .. | 1 |
| Figure 1. | Sample FAA Form 8120-6. | 2 |

CHAPTER 1. INTRODUCTION

- 1. PURPOSE.** This order contains guidance related to production approvals and surveillance of manufacturers of type-certificated products, technical standard order articles, and replacement and modification parts to ensure fair and uniform administration of the pertinent Title 14 Code of Federal Regulations (14 CFR) part 21, Certification Procedures for Products and Parts (part 21).
- 2. DISTRIBUTION.** This order is distributed to the Washington Headquarters division levels of the Flight Standards Service; to the branch levels of the Aircraft Certification Service; to the branch levels in the regional Flight Standards Divisions and Aircraft Certification Directorates; to all Flight Standards District Offices; to all Aircraft Certification Offices, Aircraft Certification field offices, and all Manufacturing Inspection District and Satellite Offices; to the Aircraft Certification and Flight Standards Branches at the FAA Academy; to the Suspected Unapproved Parts Program Office; to the Brussels Aircraft Certification and Flight Standards Staff; to applicable Representatives of the Administrator; and to all International Field Offices.
- 3. CANCELLATION.** Federal Aviation Administration (FAA) Order 8120.2A, Production Approval and Surveillance Procedures, dated 4/30/79, is canceled.
- 4. EXPLANATION OF MAJOR CHANGES.** The following list identifies the significant changes contained in this revision:
 - a.** Paragraph 10 specifies that FAA employees are only federally protected for the work they perform if it is within the scope of official policy.
 - b.** Chapter 5 provides guidance that supplements FAA Order 8110.42, Parts Manufacturer Approval Procedures.
 - c.** Paragraph 75b specifies the procedures for identifying detail parts produced for installation in a TSO article; paragraph 75c specifies marking requirements for TSO articles that have left the manufacturer's quality control system; and paragraph 75d specifies marking requirements for parts produced under the Enhanced Enforcement Program (EEP).
 - d.** Paragraph 86b discusses unauthorized sales and control of production overruns at supplier facilities.
 - e.** Paragraph 90b(3) adds criteria addressing inspection and testing at the supplier facility by the PAH, or by the supplier when authorized by the PAH.
 - f.** Paragraph 97 identifies applicable FAA responsibilities with regard to oversight of U.S. suppliers to foreign manufacturers, repair stations, and/or air carriers.
 - g.** Paragraph 197c(5) specifies how a MMF number is assigned.

h. Appendix 1, figure 1, incorporates a sample of the current FAA Form 8110-12, Application for Type Certificate, Production Certificate, or Supplemental Type Certificate.

i. Chapter 9, Coordination with Department of Defense, was removed due to obsolete information. A Memorandum of Understanding between the FAA and DoD is pending approval in the Senate. Chapter 9 is now Investigation of Service Difficulties.

5. ACRONYMS. Abbreviations and acronyms as used in this order are:

| | |
|--------------|--|
| AC | Advisory Circular |
| ACSEP | Aircraft Certification Systems Evaluation Program |
| ACO | Aircraft Certification Office |
| APIS | Approved Production Inspection System |
| BAA | Bilateral Airworthiness Agreement |
| BASA | Bilateral Aviation Safety Agreement |
| BFE | Buyer Furnished Equipment |
| CAA | Civil Aviation Authority of a non-U.S. country or jurisdiction |
| CFE | Customer Furnished Equipment |
| CFR | Code of Federal Regulations |
| CIR | Conformity Inspection Record, FAA Form 8100-1 |
| CM | Certificate Management |
| DAS | Designated Alteration Station |
| DO | District Office |
| DOA | Delegation Option Authorization |
| DoD | Department of Defense |
| DOT | Department of Transportation |
| DMIR | Designated Manufacturing Inspection Representative |
| EEP | Enhanced Enforcement Program |

| | |
|-------------|--|
| FAA | Federal Aviation Administration |
| FIS | Fabrication Inspection System |
| FSDO | Flight Standards District Office |
| GFE | Government Furnished Equipment |
| MIDO | Manufacturing Inspection District Office |
| MIO | Manufacturing Inspection Office |
| MISO | Manufacturing Inspection Satellite Office |
| MMF | Manufacturer's Maintenance Facility |
| MRB | Material Review Board |
| NDT | Non Destructive Testing |
| OAC | Original Airworthiness Certification |
| ODAR | Organizational Designated Airworthiness Representative |
| PAH | Production Approval Holder |
| PC | Production Certificate |
| PCB | Production Certification Board |
| PI | Principal Inspector |
| PLR | Production Limitation Record |
| PMA | Parts Manufacturer Approval |
| QC | Quality Control |
| SDR | Service Difficulty Report |
| STC | Supplemental Type Certificate |
| TC | Type Certificate |
| TSO | Technical Standard Order |

6. DEFINITIONS. For the purpose of this order, the following definitions apply:

a. Approved Quality Control Data. Data which provides an acceptable (as determined by the FAA) description of the quality control system as required by part 21. These data would encompass the methods, procedures, processes, inspections, tests, specifications, charts, lists, forms, etc., which the manufacturer or the manufacturer's supplier employs to produce products/parts thereof for which the manufacturer holds an FAA design approval.

b. Article. Materials, parts, and/or appliances produced under the provision of a TSO authorization. All references in this order to "parts thereof" include TSO articles, as applicable. An article as specified in § 21.143(a) (which includes any material, part, subassembly, assembly, system, or appliance that is used in the type-certificated product) is referred to herein as a "part thereof."

c. Associate Facility. This is a facility that has been approved as an extension to an original PAH. This facility is owned and operated by the same corporate management as the original PAH that controls the design and quality of the product/part thereof, except for companies participating in joint-production and/or co-production business agreements. The associate facility must be listed as a manufacturing facility on the production certificate or the letter of authorization for other production approvals, e.g., PMA or TSO authorization (reference chapter 16 of this order).

d. Certificate Management (CM). CM is the ongoing responsibility for surveillance of those manufacturers that hold a production approval (reference chapter 2 of this order).

e. Complete Inspection. Inspection in which all properties, e.g., physical, chemical, visual, functional, etc., of each product are examined or tested to determine conformance to FAA-approved data.

f. District Office (DO). The Manufacturing Inspection District Office (MIDO), and where applicable, the Manufacturing Inspection Satellite Office (MISO), Certificate Management Office (CMO), or Certificate Management Unit (CMU), having CM responsibility for a defined geographic area.

g. Finding. A finding is classified as a safety finding or a system finding. A safety finding is a safety-related noncompliance that the responsible PI determines requires immediate action. A system finding, in general, is a noncompliance with an applicable 14 CFR, FAA-approved data, or purchase order that indicates a system deficiency or breakdown. See appendix 3 of this order.

h. Noncompliance. A failure to comply with specified requirements, i.e., applicable 14 CFR, FAA-approved data, or quality requirements from a PAH or parent MMF.

i. Nonobservance. A failure to comply with self-imposed procedures that are related to, but not required by, the applicable production approval, delegated facility approval, or quality requirements from a parent MMF. This terminology applies to ACSEP evaluations only.

j. Observation. An observation is classified as a system observation, an isolated observation, or a 14 CFR observation. A system observation is a nonobservance to procedures which are not part of the

FAA-approved data, and that indicates a system deficiency or breakdown. An isolated observation is a noncompliance with an applicable 14 CFR, FAA-approved data, or purchase order that does not indicate a system deficiency or breakdown. A 14 CFR observation is a noncompliance of the FAA-approved data with an applicable 14 CFR. See appendix 3 of this order.

k. Production Approval Holder (PAH). This is a holder of a PC, APIS, PMA, or TSO authorization who controls the design and quality of a product or part thereof.

l. Part Thereof. Any part, material, appliance, system, subassembly, or assembly used in a product.

m. Principal Inspector (PI). A manufacturing inspector who has been assigned CM responsibility of a particular manufacturer. In the case of a supplier, it is the inspector assigned to the supplier.

n. Priority Part. For the purpose of establishing surveillance priorities, a priority part is any part (including assemblies) in an FAA-approved design that, if it were to fail, could reasonably be expected to cause an unsafe condition in an aircraft, engine, or propeller. Examples include:

(1) Parts/assemblies identified in Airworthiness Directives on products of the same, or similar, type design.

(2) Parts identified (selected) by the type certificate holder or PAH.

(3) Critical parts, or parts of critical systems, identified during the certification process, e.g., § 21.50 (Instructions for Continued Airworthiness, "Airworthiness Limitations" section), §§ 23.621(c), 23.1309(b), 25.621(c), 25.901(c), 25.1309(b)(2), 27.621(c), 27.1309(b), 29.621(c), 29.901(c), 29.1309(b), 45.14, etc.

(4) Any other parts identified by the FAA, project engineer(s), assigned PI, etc. Aviation safety inspectors (ASI's) are encouraged to consult engineering as necessary to assist in making this determination.

o. Produce. To manufacture, or cause to be manufactured, a product/part thereof.

p. Product. Aircraft, aircraft engine, or propeller.

q. Production Certification Board (PCB). An FAA evaluation function consisting of a selected group of FAA specialists acting under the direction of the PCB chairperson for the purpose of determining eligibility of the holder of a TC or STC, or a licensee, for the issuance of a PC.

r. Satellite MMF. A MMF facility established at a location other than the location of the PAH or "parent" MMF. A satellite MMF shall be owned and controlled by the original PAH or "parent" MMF, and shall be located within the United States.

s. Selected Supplier. Supplier facilities selected for FAA surveillance.

t. Specialist. As related to the facility audit function or PC/APIS Boards, specialist includes FAA manufacturing inspectors/supervisors or flight test, structures, systems, and/or equipment engineering personnel.

u. Supplier. Any person, including a distributor, who furnishes parts or related services (at any tier) to the manufacturer of a product and part thereof.

v. Symptom. Any perceptible error in a system or item. Examples include a nonconformity, noncompliance, system defect, or inconsistency, etc., which may be indicative of a system breakdown.

w. Quality Control System. The total network of administrative and technical data and detailed procedures required to control the product and parts thereof to specified airworthiness standards. When mentioned in this order, Quality Control System also denotes inspection systems in regard to holders of an APIS or a PMA.

7. FORMS. Sample forms used for the evaluation, approval, and surveillance of the production activities outlined in this order are shown in appendices 1, 2, 3, and 5. Some of the forms are provided by AIR-200 in electronic format. Appendix 1, figure 11 of this order, provides a listing of the forms available from other sources.

8. RELATION TO OTHER DIRECTIVES. Orders referenced in this directive list only the basic order number. It is the responsibility of the user to establish that the latest revision/amendments are being utilized.

9. INFORMATION CURRENCY. Any deficiencies found, clarifications needed, or improvements regarding the content of this order will be forwarded (written or electronically) to the Aircraft Certification Service, Automated Systems Branch, AIR-520, Attention: Directives Management Officer, for consideration. FAA Form 1320-19, Directive Feedback Information, is located on the last page of this order for your convenience or you may obtain it from the AIR-200 web site at: <http://www.faa.gov/avr/air200/200home.htm>. A copy may be forwarded to the Production and Airworthiness Division, AIR-200, Attention: Comments to Order 8120.2. If an interpretation is urgently needed, you may contact AIR-200 for guidance, but you should also use the Form 1320-19 as a follow up to each verbal conversation.

10. DEVIATIONS. Adherence to the procedures in this order is necessary for uniform administration of this directive material. Any deviations from this guidance material must be coordinated and approved by AIR-200. If a deviation becomes necessary, the FAA employee involved should be guided by sound judgement, ascertaining that all deviations are substantiated, documented, and concurred with by the appropriate supervisor and AIR-200. FAA employees are only federally protected for the work they perform if it is within the scope of official policy.

11. ELECTRONIC SIGNATURE. The use of an electronic signature for the issuance of a Production Certificate (PC) and a Production Limitation Record (PLR), or a production approval letter (APIS, PMA, or TSO authorization), or an Air Agency Certificate (MMF) is not permitted.

12.-19. RESERVED.

CHAPTER 2. PRODUCTION CERTIFICATION (14 CFR PART 21, SUBPART G)

20. GENERAL. The procedures in this chapter provide guidance relative to the issuance and surveillance of a Production Certificate (PC). A PC is issued to comply with Title 49 United States Code (49 U.S.C.), § 44704(b), with regard to determining that duplicates of a product conform to a particular TC. Additional guidance is contained in AC 21-1, Production Certificates.

a. Applicability.

(1) The following persons may be eligible for the issuance of a PC when the FAA finds after the examination of supporting data, and inspection of the organization and production facilities, that the applicant has complied with § 21.135:

(a) The holder/licensee of a § 21.21 TC.

(b) The holder/licensee of a § 21.29 TC, so long as the licensing agreement clearly provides for the TC holder's and its CAA's control over any design changes by the licensee. A working arrangement must also be in place between the CAA and the FAA defining their respective responsibilities as State of Design and State of Manufacture.

(c) The holder of an STC when the PC is used to incorporate the particular STC on completed aircraft prior to the issuance of an original airworthiness certificate (STC's incorporated after OAC would be accomplished under the provisions of 14 CFR part 43, Maintenance, Preventive Maintenance, Rebuilding, and Alteration (part 43)). Also, STC holders who only desire to produce the modification parts/kit should be encouraged to apply for PMA.

(d) The holder/licensee of a § 21.25 TC, when the TC issuance was predicated on submittal (by the TC applicant) and the FAA approval of the type design data required by § 21.31.

(2) A PC may not be issued to the holder of a TC issued under § 21.27, or part 21, subpart C (provisional).

(3) A PC may not be issued if the manufacturing facilities are located outside the United States, unless it has been determined, in accordance with § 21.137, that such location(s) would place no undue burden on the FAA.

b. Advising the Applicant. The applicant should be advised that:

(1) AC 21-1 sets forth an acceptable means of complying with part 21, subpart G. Alternative methods and procedures may be approved when the applicant can show that the proposed methods and procedures will achieve compliance with part 21.

(2) The data required to be submitted under § 21.143 should be arranged in the format suggested in AC 21-1. (In those instances where an applicant has already established QC procedures,

e.g., for military contracts, the applicant must identify those portions that comprise the QC data that will be used to show compliance with § 21.143.) These data may or may not comprise a lengthy document, depending upon the size of the manufacturing facilities and product complexity. Each manual must include descriptive material that adequately covers each applicable paragraph of § 21.143. A title must be provided for positive identification and a revision page or similar control is required to ensure that the original approval date and the date of each revision is recorded. A number or letter must identify each revision.

(3) A PC holder has the privileges specified in § 21.163. The advantages of a PC holder as compared to production under a TC only include the following:

- (a) No requirement to submit FAA Form 8130-9, Statement of Conformity, for each completed product.
- (b) Reduced FAA involvement, relative to conformity inspections and surveillance.
- (c) The issuance of airworthiness certificates and approvals for completed products without further showing.
- (d) The issuance of export certificates for small aircraft without assembly or flight test.

(4) A PC holder has the responsibilities described in paragraph 23 of this order.

21. APPLICATION. Application for a PC is made on FAA Form 8110-12, Application for Type Certificate, Production Certificate, or Supplemental Type Certificate (reference appendix 1, figure 1, of this order). The application must be submitted by the applicant to the Manager, Manufacturing Inspection Office (MIO), in the directorate in which the applicant's principal manufacturing facility is located (see paragraph 24 of this order).

a. Acknowledgement. Upon receipt of a properly executed Form 8110-12, the directorate office will forward a copy to the district office (DO). The DO will prepare a letter of acknowledgement, advising the applicant that it has been authorized to initiate a preliminary audit to determine compliance with applicable regulations (reference appendix 1, figure 2, of this order).

b. Preliminary DO Audit. The DO should make arrangements to conduct the preliminary audit within 30 days after acknowledging the PC application. This audit will consist of an evaluation of the applicant's QC data for compliance with § 21.143, and an evaluation of the applicant's facilities to ensure that these data are, in fact, being implemented. This audit will be conducted in accordance with the procedures in chapter 13 of this order.

c. Notifying the Applicant. Upon completion of the preliminary audit, the DO will formally notify the applicant as to any corrective actions needed to comply with § 21.135. The applicant should be further advised that these items only represent the FAA's preliminary findings, and that additional requests for corrective actions can be anticipated as a result of subsequent findings which may be noted during the PCB evaluation.

d. Reporting Preliminary Audit Results. The DO will submit FAA Form 8100-6, Record of Findings/Observations (reference appendix 3, of this order), marked "Preliminary" to the directorate office. Any unresolved items requiring correction should be identified and copies of letters to the manufacturer requesting corrective action shall be provided with the form.

e. Establishing the PCB. The PCB will be established and conducted, as appropriate, in accordance with the procedures contained in chapter 3 of this order.

f. Advising the Applicant. The district and directorate offices must provide assistance as necessary to the PC applicant. They should also endeavor to process the PC application as expeditiously as practicable.

g. Issuance of PC and Production Limitation Record (PLR). Upon a finding by the PCB that the PC applicant's QC data/system, organization, and facilities are in compliance with § 21.135, FAA Form 8120-4, PC (reference appendix 1, figure 3, of this order) and FAA Form 8120-3, Production Limitation Record, (reference appendix 1, figure 4, of this order) will be prepared for the signature of the MIO Manager. Signature authority for the PC and PLR may be delegated to the PCB Chairman. Electronic signature is not permitted. Delivery of the PC and PLR should be in person by the PI, however, if this procedure will result in an undue delay, the PC and PLR may be sent to the manufacturer by certified mail. Whichever method of delivery is used, it is essential that the manufacturer be advised of the PC display requirements and of the PC responsibilities by a letter (reference appendix 1, figure 5, of this order).

h. Preparation of PC's. PC's shall be consecutively numbered within each directorate; e.g., PC-6CE, etc. However, numbers previously issued need not be changed. Each directorate should establish and maintain a summary of PC's issued and a listing of changes made thereto.

NOTE: When PC's are issued based on a licensing agreement that is for a specific period of time, it must be indicated on Form 8120-4 under "Duration."

i. Preparation of PLR.

(1) The TC number of each product authorized for production must be listed on the PLR.

(2) The model numbers and date that the production was authorized must be listed for each model on the PLR.

j. Additions to the PLR. If a PC holder desires to add a new TC, a new model, or a new process under an existing TC to the PLR, the PC holder must make application in the same manner as for the original issuance. In these instances, it is not normally necessary to establish a PCB. In place of the PCB, the DO should conduct an audit in accordance with chapter 13 of this order. The extent of the audit should be only as necessary to determine whether the QC system is adequate or has been appropriately changed to ensure positive control of the product/process to be added to the PLR. When changes to the QC system are substantial, the PI may elect to request a nonscheduled Aircraft Certification Systems Evaluation Program (ACSEP) evaluation to make this determination. Refer to

FAA Order 8100.7, Aircraft Certification Systems Evaluation Program (ACSEP). The manager of the DO having CM responsibility may issue revisions to the PLR that include new products/models, when authorized.

k. Deletions from the PLR. Where production of a type-certificated product has been discontinued, and more than one TC is listed on the PLR, the following applies:

(1) If neither the complete product nor spare parts are being produced, the discontinued product or model should be deleted from the PLR. Upon issuance of the revised PLR, the DO shall request that the manufacturer return the superseded PLR, which shall be marked "Superseded" and retained in the files. If no other products, models, or spare parts are covered by the PC, the manufacturer shall be requested to return both the PC and PLR for cancellation. The DO will retain the canceled PC's/PLR's.

(2) If production of the complete product has ceased, but spare parts are still being produced, the PLR should be revised to reflect this. The DO should ensure that the manufacturer remains in compliance with § 21.147 and will continue to advise the FAA of any changes in its organization, systems, procedures, or processes. The DO should continue surveillance, in accordance with established procedures, over the portion of the facilities that are still active, paying particular attention to determine that:

(a) The QC data adequately covers the procedures and processes involved.

(b) The requirements of part 21, subpart G, are being met, as applicable.

l. STC Modifications Incorporated by PC Holder.

(1) When the holder of the TC obtains an STC, or is licensed to use another person's STC, the TC holder may amend the TC to incorporate the STC approval. STC's that are referenced in and become a part of the TC need not be shown on the PLR.

(2) When the PC holder of a TC obtains an STC (or related licensing agreement) but does not make the STC an integral part of the TC, the PC holder may incorporate the STC in production products prior to OAC approval, provided that:

(a) The manufacturer makes application to the FAA to add the STC to its PLR.

(b) The QC data is revised as necessary.

(c) The engineering data submitted for the STC approval provides all the details necessary for the manufacture of duplicates and for making conformity determinations.

(3) When a PC holder elects not to use either of the foregoing methods, the TC holder may incorporate STC modifications into production products only after OAC, in accordance with the provisions of part 43.

22. TESTING AIRCRAFT, ENGINES, PROPELLERS.

a. Aircraft. All aircraft produced under a PC must pass an approved production flight test as part of the inspection procedure required for issuance of an airworthiness certificate. FAA Form 8130-7, Special Airworthiness Certificate, is issued to provide authorization for production flight testing (reference FAA Order 8130.2, Airworthiness Certification of Aircraft and Related Approvals). The exceptions would be small airplanes and gliders manufactured under a PC and being exported without assembly or flight test under the provisions of § 21.325(b). The intent of this rule is to permit shipment of aircraft without assembly or flight test when the extent of disassembly is the same as an aircraft that has been disassembled for shipment purposes. In these instances, the manufacturer must provide FAA-approved assembly and flight test procedures as a condition of shipment.

b. Periodic FAA Production Flight Tests. FAA production flight tests will be conducted periodically at the PC holder's facility to ensure continued compliance with all parameters as specified in pertinent type certificate data with respect to performance, flight characteristics, operation qualities, equipment operations, etc. The PI in coordination with the flight test elements may arrange these flight tests. In addition, a determination should be made in coordination with flight test elements that the manufacturer's approved production test pilots are continuing to use approved procedures and that the approved procedures remain adequate.

c. Engines and Propellers. Engines and propellers under a production certificate must pass a production test approved as part of the QC data required by § 21.143(a)(3).

23. PC HOLDER'S RESPONSIBILITY.

a. Maintaining the Quality Control System. The holder of a PC is responsible for maintaining the QC system in conformity with the data and procedures approved for the PC, and determine that each completed product submitted for airworthiness certification or approval conforms to the TC and is in a condition for safe operation.

b. Changes in Quality Control System. Section 21.147 requires the holder of a PC to immediately notify the DO in writing of any changes that may affect the inspection, conformity, or airworthiness of the product. These changes would include:

- (1) Relocation of a portion of its facility or addition to existing facilities.
- (2) Resumption of production after being discontinued for an extended period of time for other than normal periods of time, such as vacation periods.
- (3) Significant curtailment/resumption of production operations.
- (4) Significant reduction/reassignment of QC personnel.
- (5) Changes or revisions to QC data and related procedures.

c. Marking. The holder of a PC is responsible for identifying all products and parts thereof produced under such PC's in accordance with the requirements of 14 CFR part 45, Identification and Registration Marking (part 45), and in accordance with any related FAA-approved QC procedures, as applicable.

d. Reporting. The holder of a PC must report all failures, malfunctions, and defects as required by § 21.3. The manufacturer is not required to establish a procedure for such reporting, although a procedure would be highly desirable.

24. PC HOLDER'S LOCATION.

a. A PC holder's manufacturing complex would normally consist of a principal facility and all associate facilities using the same quality control system approved by the FAA, for the particular type certificated product(s).

b. The PC is issued to the principal manufacturing facility that controls the design and quality of the product(s) for which the approval was granted. The principal facility address will be listed under the "business address" and all associate facility addresses will be listed under "manufacturing facilities" on Form 8120-4. A mailbox address is not acceptable for a facility since the actual location must be identified. Such addresses, however, may be used as supplemental to the actual address when desired for such uses as corresponding to and from FAA offices.

c. When FAA surveillance is indicated at an associate facility located within the United States, but outside the geographical area of the DO in which the PC is located, the PI will arrange for surveillance in accordance with the procedures contained in chapter 16 of this order.

d. When a PC holder moves the principal manufacturing facility to a new location, the PC is no longer effective since a PC is not transferable (reference § 21.155). If the PC holder wants a PC for the new location, the PC holder must reapply in accordance with § 21.133.

e. When the PC holder moves an associate facility or adds a new plant, the FAA must be notified of such changes in accordance with § 21.147. The new plant or moved facility must be subjected to a satisfactory DO audit before the facility can be approved for production. The PC must also be amended to reflect this change.

f. When the associate facility is producing a complete product as specified on the production approval and demonstrates compliance with part 21, it should be encouraged to apply for a separate production approval for that facility. This would serve to simplify FAA administrative procedures and provide for better service to the manufacturer, especially when the facility is located in another district or directorate.

25. DESIGNATED MANUFACTURING INSPECTION REPRESENTATIVE (DMIR) OR ORGANIZATIONAL DESIGNATED AIRWORTHINESS REPRESENTATIVE (ODAR). A PAH is eligible to have qualified employees designated as DMIR's in accordance with the provisions of 14 CFR part 183, Representatives of the Administrator (part 183). FAA Order 8100.8, Designee Management Handbook, contains procedures for the administration of DMIR's and ODAR's.

26. FAA SURVEILLANCE.

a. General. All manufacturers that hold an FAA production approval are subject to FAA surveillance. FAA surveillance is conducted by mandate, as specified in 49 U.S.C. § 44713, which requires that inspections be conducted at the point of manufacture. This serves to ensure that holders of FAA production approvals manufacture each product/part thereof in conformity with the FAA-approved design. Therefore, it is the responsibility of the manufacturing inspection function to conduct any surveillance necessary to ensure that these manufacturers (including any supplier facilities) remain in compliance with those pertinent rules which govern the manufacture of their particular products and parts thereof. The manufacturing inspection function is also responsible for identifying any unsatisfactory conditions and for ensuring that prompt corrective actions are taken when necessary. When it has been determined that a manufacturer has a poor compliance history and/or extensive service difficulties/Airworthiness Directives, or when the manufacturer does not have an adequate self-audit procedure in place, the manufacturer should be subjected to more stringent surveillance.

b. Certificate Management Responsibility. A principal manufacturing inspector should be assigned to each PC holder to manage the surveillance of all aspects of the PC holder's QC system. The PI having CM responsibility will conduct surveillance as appropriate to ensure that the PC holder's QC system has been established and is being maintained in accordance with the provisions of part 21, subpart G. The standards to be used in conducting surveillance are defined in paragraph 144a of this order. Primary functions under CM responsibility include:

(1) Evaluating and approving initial QC data and any changes to the QC system which may affect the inspection, conformity, or airworthiness of the product. Refer to chapter 11 of this order. The PI should advise the PC holder within 30 days of receipt as to whether or not a revision is acceptable (reference appendix 1, figure 6, of this order).

(2) Evaluating inspection/quality assurance provisions of manufacturing and special processes and subsequent revisions.

(3) Conducting compliance/conformity inspections on prototype and production products and parts thereof, as necessary.

(4) Training, monitoring, and supervising designees.

(5) Issuing airworthiness and export approvals, as necessary.

(6) Providing guidance and assistance to the certificate holder, as necessary.

(7) Investigating service difficulties which involve QC problems in accordance with chapter 9 of this order and FAA Order 8010.2, Flight Standards Service Difficulty Program.

(8) Investigating regulatory violations in accordance with FAA Order 2150.3, Compliance and Enforcement Program, as appropriate.

(9) Ensuring that appropriate corrective actions have been taken for all unsatisfactory conditions cited against the particular manufacturer.

(10) Determining the need for audits or ACSEP evaluations, and making the arrangements for such audits or evaluations.

(11) Conducting/participating in PI or DO audits and/or ACSEP evaluations, as necessary.

(12) Monitoring the certificate holder's supplier facilities to determine the need for surveillance, in accordance with chapter 8 of this order.

(13) Conducting any surveillance or investigation activity within the guidelines contained in this order, to ensure continued compliance with part 21, subpart G.

(14) Notifying the PC holder in writing when any unsatisfactory conditions are noted related to the QC or production systems, along with a request for appropriate corrective actions.

(15) Advising FAA engineering elements whenever technical data is found to be inadequate for producing duplicates; e.g., missing dimensional characteristics, material/process specifications not listed, etc.

(16) Monitoring the certificate holder's use of an operator verification program that employs the use of production personnel to perform in-process inspection checks and ensuring that the responsibility for final inspection remains with the quality control organization.

c. Types of Surveillance. There are two basic types of FAA surveillance activity. They are listed as follows:

(1) **Random.** This includes any of those surveillance tasks referred to in paragraph 26b of this order which may be accomplished on an as-required basis; e.g., initial approval/evaluation of QC data, or investigation of a service difficulty at a supplier facility. This type of surveillance may be accomplished by a DO audit (see chapter 13 of this order), or when appropriate, an unscheduled ACSEP evaluation (see Order 8100.7).

(2) **Ongoing.** This includes any of those surveillance tasks referred to in paragraph 26b of this order which need to be accomplished on a continuing basis, e.g., monitoring of a PC holder's QC system. This type of surveillance may be accomplished by a PI audit (see chapter 13 of this order), or a scheduled ACSEP evaluation (see Order 8100.7).

d. Surveillance Reporting. All surveillance activity will be recorded on Form 8100-6 (reference appendix 3 of this order), and FAA Form 8120-14, Surveillance Activity Report (reference appendix 2 of this order), in accordance with procedures contained in chapter 12 of this order.

e. Surveillance Responsibility. The DO having CM for a particular manufacturer is responsible for the accomplishment of any necessary surveillance. The DO will conduct any necessary surveillance, as appropriate, at the manufacturer's facilities (including suppliers) located within their geographical area of responsibility. Any surveillance required at any of the particular manufacturer's facilities that are located in another geographical area should be handled in accordance with paragraph 91 of this order.

27. ENFORCEMENT ACTIONS. The principal objective of the FAA compliance and enforcement program is to promote aviation safety and to protect the public interest by obtaining compliance with 49 U.S.C. and 14 CFR.

a. Enforcement Philosophy. The policy expressed in Order 2150.3 should be clearly understood. Good judgment should be exercised in determining whether or not a valid noncompliance to the applicable 14 CFR or an FAA-approved quality control system does exist before initiating any enforcement actions. Unsatisfactory conditions (reference appendix 3, figure 2, "Isolated" of this order) which do not constitute a quality control system breakdown, or those which would have no adverse effect on safety, should not be processed as noncompliances. The initiation of enforcement actions in these instances would only serve to dilute the effectiveness of the enforcement program. However, when such unsatisfactory conditions are noted, the PC holder must be requested to take prompt corrective actions. The FAA will mitigate or alleviate civil penalties if a PC holder elects to self-disclose a noncompliance that has left its control, correct the noncompliance in a timely manner, and take effective preventative action.

b. Enforcement Procedures. Order 2150.3 should be followed for any noncompliances against part 21, subpart G, not self-disclosed. These procedures should also be followed when a PC holder is found to be in noncompliance with the approved QC data since these data constitute the PC holder's commitment as to the manner in which it will comply with part 21, subpart G. Quality control data deficiencies found after the data is originally approved by the FAA are not a basis for taking enforcement action. When such deficiencies are found, the PC holder should be formally requested by separate letter (reference paragraph 171 of this order) to take appropriate corrective actions in a timely manner. If the PC holder does not, enforcement actions should then be initiated, as deemed appropriate.

c. Multiple Enforcement Actions. When a number of noncompliances have been noted at a PC holder's facility, such as those resulting from audit or ACSEP evaluation findings, they should be handled as one enforcement action. The only exception would be when there are different types of enforcement actions involved. In this instance, a separate enforcement action would be initiated for each type of enforcement action to be taken. For example, if an audit results in four noncompliances where administrative action is indicated and three noncompliances where legal action is deemed appropriate, these should be handled as two separate enforcement actions.

d. Invalid Alleged Violations. A PC holder should be advised when an alleged noncompliance, as cited in a Letter of Investigation (LOI), has been later determined to be invalid.

28. DISTRIBUTION OF PRODUCTION CERTIFICATION DOCUMENTS. These documents should be distributed as follows:

a. FAA Form 8110-12, Application for PC.

- (1) Original to the directorate office.
- (2) One copy to the DO.

b. Quality Control Data. All QC data and any subsequent revisions submitted by manufacturers should be retained in the cognizant DO.

c. Letters to a Manufacturer.

- (1) One copy to the DO.
- (2) One copy to the directorate office.

d. FAA Form 8120-4, PC, and FAA Form 8120-3, PLR.

- (1) Originals for the applicant/manufacturer.
- (2) Copy of each for directorate files.
- (3) Copy of each for district files.

e. FAA Form(s) 8100-6 and 8120-14. Refer to chapter 12 of this order for distribution instructions.

29. SUPPLIER SURVEILLANCE. Refer to chapter 8 of this order for supplier surveillance methods.

30. RECORDS AND REPORTING REQUIREMENTS. Refer to chapter 12 of this order.

31.-34. RESERVED.

CHAPTER 3. PRODUCTION CERTIFICATION BOARD (PCB)

35. GENERAL. A Production Certification Board (PCB) is a high-level FAA evaluation function based directly upon the responsibilities established in 49 U.S.C., sections 44701, 44702, 44704, and 44709.

a. Purpose. The purpose of the PCB is to evaluate the eligibility of the applicant for issuance of a PC based upon the preliminary findings and recommendations of the DO and the PCB's review of the applicant's facilities and QC data.

b. Applicability. The PCB should be convened only for initial production approvals, or when entire facilities have been relocated or are added to the PC. The PCB should not be convened for the addition of new models to the PLR or relocation of a portion of the facility. In these instances, the procedures contained in paragraph 21j of this order should be followed.

c. PCB Members. PCB members should consist of a group of qualified specialists from Airframe, Systems & Equipment, Propulsion, Manufacturing, and Flight Test functions, as appropriate. These members will assist in evaluating the applicant's production, engineering, and flight test procedures, and other related functions. Representatives from Washington, DC, the Aeronautical Center, and/or other directorates may also participate in a PCB, when deemed desirable or necessary.

d. PCB Chairman. The MIO manager of the directorate where the manufacturing facility to be evaluated is located will act as the Chairman of the Board. When necessary, the MIO manager may delegate the chairmanship to the MIDO manager or other qualified directorate office personnel.

36. PCB MEMBER RESPONSIBILITIES. Specific PCB member responsibilities are as follows:

a. PCB Chairman. The PCB chairman is responsible for:

(1) Selecting and assigning Board members, as deemed appropriate for the particular product, and notifying the members of the pending PC in sufficient time to permit adequate planning and preparation.

(2) Notifying the applicant of the PCB schedule and identifying members and their assignments.

(3) Selecting a representative number of the applicant's supplier facilities for evaluation to determine whether or not the applicant's QC system provides for satisfactory supplier control.

(4) Conducting pre/post PCB meetings with the PCB and/or the applicant.

(5) Reviewing and analyzing the PCB findings and ensuring that appropriate corrective actions have or will be taken.

(6) Completing, signing, and distributing the PCB minutes.

b. Principal Inspector. The PI, in coordination with the responsible MIDO manager having CM, and the PCB chairman, is primarily responsible for establishing schedules, making arrangements for meeting rooms, obtaining sufficient copies of QC data, and making all other arrangements necessary for convening and conducting the PCB in the most expeditious manner. The PI is further responsible for ensuring that all agreed upon corrective actions have been taken by the applicant, for preparing the minutes of the PCB, and for initiating and completing any enforcement actions, when applicable.

c. Propulsion Section/Branch. The propulsion section/branch is responsible for the evaluation and approval of the applicant's production engine/propeller test procedures, as required by § 21.143(a)(3). This effort will be coordinated with the responsible MIDO. Upon determining that the procedures are acceptable, a letter of approval will be prepared and forwarded to the applicant when a PC is issued. A copy of this approval letter will be included in the PCB minutes.

d. Flight Test Section/Branch. The flight test section/branch is responsible for evaluation and approval of the applicant's flight test procedures and checklists as required by § 21.143(a)(3). This effort will be coordinated with the responsible MIDO. Upon determining that the procedures and checklists are acceptable, a letter of approval will be prepared and forwarded to the applicant when a PC is issued. The letter will also include the names of those company pilots designated and authorized by the applicant to conduct production flight tests. A copy of this letter will be included in the PCB minutes.

e. Other PCB Members. Airframe and equipment engineering representatives and all other PCB members are responsible for ensuring that the applicant is in compliance with § 21.139, as appropriate to their particular assignment. Representatives from Washington, DC, the Aeronautical Center, and/or other directorates are responsible for acting in an advisory capacity and/or for the completion of any PCB activity assigned by the PCB chairman.

37. CONDUCT OF THE BOARD. A PCB is generally conducted in the following basic phases:

a. Initial FAA Personnel Meeting. Prior to arranging a Pre-Production Board meeting, a meeting of FAA personnel will be held for the purpose of reviewing the results of the initial audit, DO recommendations, and related correspondence between the FAA and the applicant. This meeting will also serve to plan the PCB audit, schedule subsequent meetings, and establish agenda items for the Pre-Production Board meetings.

b. Pre-Production Board. A Pre-Production Board meeting with the applicant's representatives should be considered upon receipt of the PC application. This meeting should include the Chairman, MIDO manager, the PI, and others as necessary. The purpose of this meeting is to advise the applicant as to the purpose of the Board and of the FAA's evaluation plans. It should be made clear to the applicant that the Board is a fact-finding body convened to determine whether or not the applicant is in compliance with § 21.135. The applicant should also be advised that the PCB is responsible for making a thorough evaluation of the applicant's QC system/data, the organization, and the production facilities. Also, a determination should be made at this time that the location of the applicant's facilities will pose no undue burden on the FAA as specified in § 21.137.

c. PCB Audit. Following the Pre-Production Board meeting with the applicant, the PCB should evaluate the applicant's QC data and perform an on-site evaluation of the applicant's QC system, organization, production facility, and any suppliers, as deemed appropriate (see chapter 13 of this order for audit procedures).

d. Internal FAA PCB Meetings. Board meetings, attended by all Board participants, will be conducted as needed to discuss and evaluate each unsatisfactory condition submitted by each member.

e. Recording Unsatisfactory Conditions. All unsatisfactory conditions will be recorded as findings or observations on Form(s) 8100-6 and 8120-14 (see appendices 2 and 3 of this order).

f. Final PCB Meeting. A final meeting, attended by all PCB members and representatives of the applicant, will be held to advise the applicant of the PCB findings. Each unsatisfactory condition should be presented and discussed briefly.

(1) Corrective Action. In those instances where a product is being produced under a TC only, the PC applicant must be requested to commence immediate corrective action on those items that directly involve the product and related QC practices. A reasonable time may be allowed for correcting deficiencies in the QC data. However, the applicant must be advised that the PCB cannot recommend that a PC be issued unless all applicable regulations are complied with and until the DO has evaluated all corrective actions and found them to be satisfactory.

(2) Formal Confirmation. The applicant must also be advised that an official letter will be sent confirming the verbal presentation of the list of unsatisfactory conditions. This formal notification should be prepared by the PI for the signature of the Chairman of the Board, within ten working days following the final meeting with the manufacturer.

(3) Violations. If the PC applicant is manufacturing a product under a TC only, and any of the unsatisfactory conditions are determined to be violations to part 21, subpart F, appropriate enforcement actions should be initiated by the DO in accordance with Order 2150.3.

g. Final Phase of PCB. The final phase of a PCB is the evaluation by the DO of the corrective action taken by the applicant. The results of the reinspection should be reported to the Chairman of the Board using Form 8120-14 (see appendix 2 of this order).

h. PCB Conclusion. The applicant will be formally advised in writing by the DO, as soon as practicable, that a PC will be issued based on a showing of compliance to § 21.135. The applicant will be advised formally that a PC will not be issued if there is failure to show compliance with § 21.135.

38. PCB MINUTES. The DO shall prepare the PCB minutes for the signature of the Chairman. The minutes should encompass a concise record of the entire PCB proceedings, including the names and titles of all participants.

a. All correspondence relating to the PCB, including letters to the applicant, replies, etc., are considered to be part of the minutes and should be attached as appendices.

b. All Form(s) 8100-6 and 8120-14 should also be attached to the PCB minutes as a separate appendix. The DO should retain this appendix only until such time as satisfactory corrective actions have been accomplished (normally 60 days). The directorate office may destroy their copy of this appendix at its discretion, but no sooner than 60 days after receipt.

c. The PCB minutes shall be stamped "FOR OFFICIAL USE ONLY" in accordance with FAA Order 1200.23, Public Availability of Information, and DOT regulation part 7, section 7.65. Distribution shall be restricted within the FAA.

d. The PCB minutes should be distributed as follows:

- (1) Original to the directorate office involved.
- (2) One copy to the cognizant DO that participated in the PCB.

39. PCB ADJOURNMENT. The PCB will be adjourned when the PCB minutes are accepted by the Chairman and distributed to the Board members.

CHAPTER 4. PRODUCTION UNDER A TYPE CERTIFICATE ONLY
(14 CFR PART 21, SUBPART F)

40. GENERAL. The procedures in this chapter provide guidance relative to the issuance and maintenance of an Approved Production Inspection System (APIS), under part 21, subpart F. Additional guidance is contained in AC 21-6, Production Under Type Certificate Only.

a. Applicability. Part 21, subpart F, is applicable to a holder or licensee of a TC who desires to manufacture a complete product and parts thereof, without benefit of a PC.

b. Advising Applicants. When production of duplicates under the provisions of part 21, subpart F, is indicated, a TC applicant should be advised (during the preliminary TC Board) of the following:

(1) The applicant's intentions should be documented with respect to production of duplicates to the DO. This will allow FAA inspections and evaluations to be scheduled at the earliest stages of establishment of the applicant's production inspection system.

(2) The applicant should strive for a PC instead of an APIS. The applicant should also be advised of the privileges entitled to as a PC holder and the advantages of such an approval (reference paragraph 20b(3) of this order).

(3) The FAA inspectors will conduct inspections and issue all of the necessary airworthiness certificates and approvals for a maximum period of six months (except as otherwise authorized after the date of issue of the TC). The applicant should also be advised that FAA personnel resources are limited and that delays may occur during the six-month period depending on the number of inspections and hours which may be necessary.

(4) The applicant, subsequent to the six-month period (except as otherwise authorized), must obtain an APIS or PC in order to continue production of its particular type-certificated product. Additionally, any products or parts thereof manufactured after the deadline date without FAA authorization are subject to enforcement action.

(5) An APIS approval is based on compliance with those inspection standards specified in § 21.125. Furthermore, these standards along with any inspection system data submitted form the basis for all FAA surveillance activity.

(6) The rules require, insofar as data are concerned, the APIS holder to have process specifications, materials review records, test procedures, and flight check forms which are acceptable to the FAA. It would be advantageous to the TC applicant to develop these data concurrently with the manufacture, inspection, and testing of prototypes of the product.

(7) The applicant is recommended (although not required by rule) to submit (at the appropriate time) a description of the inspection system as evidence of compliance with § 21.125 (reference paragraph 49c of this order).

(8) The applicant cannot utilize manufacturing facilities located outside the United States unless the FAA has determined that the location of the facilities places no undue burden on the FAA, as specified in § 21.43.

(9) The TC holder who desires to produce duplicates under the provisions of part 21, subpart F, must accept the responsibility as described in paragraph 46 of this order.

41. FAA CONFORMITY DETERMINATIONS DURING THE SIX-MONTH PERIOD.

Subsequent to the date of issuance of the TC and prior to the issuance of an APIS or PC, the DO has full responsibility for determining whether the product and parts thereof conform to the type design and are in a condition for safe operation. The DO must perform detailed inspections of all incoming materials (at the source, if necessary), installations, and the completed products. The DO must also document and record each inspection conducted so that each product/part thereof has a complete inspection record.

42. APPLICATION FOR AN APIS. When an applicant expresses a desire to apply for an APIS instead of a PC, the applicant should be advised that a formal application is not required by the regulations. However, Form 8110-12 may be used to apply for the APIS since it contains appropriate spaces to indicate whether or not production privileges are desired or whether or not parts will be manufactured for sale (see appendix 1, figure 1, of this order).

43. PROCEDURE FOR APIS ISSUANCE.

a. Provisional Approval Procedures. Evaluation of the applicant's inspection system should be accomplished by the DO, concurrent with conducting conformity inspections and making those airworthiness determinations required of the FAA prior to the issuance of an APIS. It is, therefore, to the advantage of the FAA to evaluate and provisionally approve the inspection system on a progressive basis. As portions of the system are determined to meet the regulatory requirements, the DO should:

(1) Maintain a record of those portions of the system considered satisfactory.

(2) Reduce conformity inspections to a spot-check basis for articles covered by the provisionally approved portion of the system.

(3) Place increased emphasis on securing corrective actions on the portions of the system where procedural discrepancies or nonconformities have been found or where the system has been found to be inadequate.

b. Assessing the Applicant's Progress. The DO should assess periodically the applicant's progress in complying with the rules for obtaining approval of the APIS. If it appears that the applicant is delaying this action or may not be eligible for the APIS by the deadline date (six-month period specified in § 21.123(c)), the applicant should be advised in writing of all known deficiencies. Also, the applicant should be cautioned that after the deadline date, the FAA will not issue any airworthiness certificates or any other approvals unless an extension of the time period is authorized by the directorate manager. The DO should keep the directorate office apprised as to the applicant's progress.

c. Extension of Six-Month Period. An extension may be granted when there are unusual or extenuating circumstances that preclude the establishment of an APIS within the six-month limitation. No extension of the six-month period should be granted without giving due consideration to the impact the extension would have on FAA personnel resources and safety. In all instances, an extension should be considered only when the applicant can substantiate the reasons for requesting such an extension. For example, extensions may be justified in those instances where products are in limited or infrequent production and/or for license and/or transfer of TC's that were issued more than six months prior to the licensing agreement or transfer (reference appendix 1, figure 7, of this order for a sample extension letter).

d. Failure to Establish APIS. When an applicant fails to establish an APIS required by § 21.125 by the end of the six-month period (except as otherwise extended), the FAA will no longer make conformity determinations and will discontinue the issuance of all airworthiness certifications and approvals. However, the FAA should continue to counsel and advise the applicant to the extent necessary to assist in obtaining an APIS as soon as practicable.

e. DO Preliminary Audit. When the DO has determined that the applicant has the capability to comply with § 21.125, that office will conduct a preliminary audit using the DO audit procedures described in chapter 13 of this order.

f. Notifying the Applicant. Upon completion of the preliminary audit, the DO will formally notify the applicant as to any corrective actions necessary to comply with § 21.125. The applicant should be advised that an APIS Board will be scheduled which could result in a request for additional actions.

g. Reporting. As soon as the DO has completed its preliminary audit and provisional approval of the applicant's facilities, a preliminary Form 8120-14 should be prepared and forwarded to the directorate office, along with information concerning the applicant's ability to comply with § 21.125.

h. APIS Board. Upon notification by the DO that the applicant is in a position to comply with § 21.125, the directorate office should schedule an APIS Board. The primary objective of this Board is to make a final determination as to whether or not the applicant has established a production inspection system that complies with § 21.125 and that is capable of producing duplicate products and parts thereof in conformity with the type design and are in a condition for safe operation.

(1) Conduct of the APIS Board. This Board shall be conducted in a manner similar to a PCB, including the use of a Chairman. The PCB procedures contained in chapter 3 of this order should be followed, as deemed appropriate, by the directorate for the particular product involved.

(2) Recording of the APIS Board. The APIS Board should be documented in the same manner as a PCB (reference chapter 3 of this order), as applicable to the particular situation.

44. APIS APPROVAL LETTER.

a. Preparation and Delivery. When the APIS Board has determined and documented that the applicant's complete production inspection system complies with the requirement of part 21, subpart F,

the directorate office will prepare a letter in accordance with the sample provided in appendix 1, figure 8, of this order approving the production inspection system. Electronic signature is not permitted. The approval letter should be delivered to the manufacturer by the DO, or may be forwarded by certified mail when deemed most expeditious.

NOTE: When an APIS is based on a licensing agreement that is for a specific period of time, the period of time must be indicated on the APIS approval letter.

b. Action to Supersede or Revise Approval Letter. If subsequent to the issuance of the original letter, the manufacturer desires to add another type-certificated product or a new model to the manufacturer's APIS, a superseding approval letter should be issued listing the original and the new product(s) and/or model(s). Prior to the issuance of the revised letter, the DO should evaluate any changes to the APIS that may be involved in the manufacture of the new product. Upon receipt of a Form 8120-14 and a satisfactory recommendation from the DO, the directorate office may then issue the updated letter. The manufacturer shall be requested to return the original letter that shall be marked "superseded" and retained in the directorate files.

45. TESTING AIRCRAFT, ENGINES, PROPELLERS. Each person who produces a completed product (except rocket engines) under part 21, subpart F, must flight test and/or functional test that product in accordance with the requirements of §§ 21.127, 21.128, or 21.129, as applicable.

a. Aircraft. Each aircraft produced under part 21, subpart F, both prior to and subsequent to the issuance of an APIS, must be flight tested in accordance with an approved production flight test procedure and flight checklist form as required by § 21.127.

b. Engines and Propellers. Each engine or propeller produced under part 21, subpart F, both prior to and subsequent to the issuance of an APIS, must be subjected to an acceptable test run or functional test in accordance with the requirements of § 21.128 or 21.129, as appropriate.

46. TC HOLDER'S RESPONSIBILITY UNDER 14 CFR PART 21, SUBPART F.

a. Prior to the issuance of an APIS, a TC holder or licensee who produces a product is responsible for complying with §§ 21.123, 21.127, 21.128, 21.129, and 21.130, as appropriate for the particular product involved.

b. Subsequent to the issuance of an APIS, the TC holder or licensee is additionally responsible for maintaining the APIS in accordance with § 21.125 to ensure that each product conforms to the type design and is in a condition for safe operation. The TC holder or licensee must also comply with any terms or conditions as prescribed in its APIS approval letter.

c. A TC holder or licensee is also responsible for reporting any failures, malfunctions, and defects as required by § 21.3.

d. All products manufactured under the provisions of part 21, subpart F, must be marked in accordance with the requirements of part 45.

47. FACILITY LOCATION. The same basic guidance as contained in paragraph 24 of this order shall be used, as applicable.

48. DESIGNATED MANUFACTURING INSPECTION REPRESENTATIVES (DMIR). The holder of an APIS is eligible to have qualified employees designated as DMIR's in accordance with the provisions of part 183. Order 8100.8 contains procedures for the management of DMIR's.

49. SURVEILLANCE.

a. Assignment of Principal Inspector. A PI should be assigned to each APIS holder to manage the surveillance of all aspects of the APIS. The PI assigned this responsibility will conduct ongoing surveillance, as appropriate, to ensure that the holder remains in compliance with the requirements of part 21, subpart F. The CM functions for which the PI will be responsible are those identified in paragraph 26 of this order, as applicable. The standards to be used in conducting surveillance are defined in paragraph 144b of this order.

b. Audits/Evaluations. Subsequent to the issuance of an APIS, all audit activity at the holder's facility will be accomplished in accordance with chapter 13 of this order. All ACSEP evaluation activity will be accomplished in accordance with Order 8100.7.

c. Inspection System Data. Whenever an APIS applicant elects to submit inspection data as evidence of compliance with part 21, subpart F, these data will be submitted to the cognizant DO for evaluation in accordance with the criteria contained in chapter 11 of this order. When these data have been found acceptable, the statement, as reflected in appendix 1, figure 8, item 11, of this order should be included in the APIS authorization letter. Any subsequent revisions to these data should be accepted by the PI prior to implementation. The APIS holder should be notified within 30 days of receipt of any revised data as to whether or not it is acceptable. The sample letter in appendix 1, figure 6 of this order, should be used for this notification.

50. ENFORCEMENT ACTIONS. Order 2150.3 should be followed for noncompliance to part 21, subpart F, and part 45 prior to and after the issuance of the APIS. Additionally, enforcement procedures should be followed for any violations against § 21.125 subsequent to the issuance of the APIS. These procedures do not apply to noncompliances to a written description of a production inspection system (when submitted by a manufacturer) since there are no regulatory requirements for such data. Refer to paragraph 27 of this order for additional guidance, as applicable, relative to enforcement actions.

51. SUPPLIER SURVEILLANCE. Refer to chapter 8 of this order for supplier surveillance methods.

52.-57. RESERVED.

CHAPTER 5. PARTS MANUFACTURER APPROVAL (PMA) (SPECIAL GUIDANCE)

58. GENERAL. The guidance relative to the issuance of a PMA and the surveillance of the PMA holder is located in FAA Order 8110.42, Parts Manufacturer Approval Procedures. The subjects and procedures in this chapter provide supplemental guidance to that order.

59. MARKING DETAIL PARTS OF PMA ASSEMBLIES. PMA part markings required by § 45.15 are applied to the top-level assembly for which the original PMA was granted, not subassemblies or individual detail parts. For example, if the PMA was approved for a thrust reverser, the PMA marking would be affixed to the completed assembly. It is not required that each individual subassembly or detail part within the assembly be marked with FAA-PMA, unless it is being produced under its own PMA. If a PMA is granted for an assembly, individual detail parts of the assembly sold separately must be accompanied by a shipping document containing the information required by § 45.15 and shall identify the PMA assembly for which they are eligible. The part marking requirements for detail parts, which are sold by the original PMA holder for installation into its related PMA assemblies, are found within the applicable design data for the assembly. This provides traceability of the individual detail parts to their related PMA assemblies.

NOTE: This detail part information supplements Order 8110.42A, paragraph 9e, titled Applicant Responsibilities, Part Marking Requirements.

60. ENFORCEMENT. Order 2150.3 should be followed for any noncompliance to part 21, subpart K. Noncompliances to part 21 subpart A and part 45 are also the basis for enforcement actions. When a PMA applicant submits a written system as evidence of compliance to § 21.303(h), this data will be analyzed to determine that they meet the intent of the applicable part 21 section(s). Enforcement procedures do not apply to noncompliances to a written description of an FIS (when submitted by a PMA applicant/holder) since there is no regulatory requirement for such data. Additionally, violations are written only against the applicable 14 CFR. There must be a 14 CFR to quote when filing a violation on any enforcement case.

NOTE: This information supplements Order 8110.42A, paragraph 11b(5), titled MIDO/MISO Responsibilities, Post PMA Activities, and Enforcement.

61. IDENTIFICATION MARKING OF REPLACEMENT AND MODIFICATION PARTS PRODUCED PURSUANT TO THE ENHANCED ENFORCEMENT PROGRAM (EEP) AS PUBLISHED IN FEDERAL REGISTER NOTICE, FEBRUARY 27, 1995. Section 45.15 states that each person who produces a replacement or modification part under a PMA issued under § 21.303 shall permanently and legibly mark the part. Parts produced without a PMA, such as parts produced under the EEP, were not produced under § 21.303 and therefore are not eligible for marking in accordance with § 45.15. Although parts produced under the authority of the EEP are not eligible for part marking, these parts were considered acceptable for sale/installation under the provisions of § 21.305(d). Section 21.305(d) allows parts to be approved in any manner approved by the FAA Administrator. Parts produced under the authority of the EEP continue to be acceptable subsequent to the expiration of the EEP.

NOTE: To obtain the history and additional information on the EEP, see expired AIR-200 Policy Memorandum # 99-11, Identification Marking Of Replacement

**And Modification Parts Produced Pursuant To The Enhanced Enforcement
Program (EEP) As Published In Federal Register Notice, February 27, 1995.**

62.-69. RESERVED.

**CHAPTER 6. TECHNICAL STANDARD ORDER (TSO) AUTHORIZATION
(14 CFR PART 21, SUBPART O)**

70. GENERAL. The procedures in this chapter provide guidance relative to the issuance and maintenance of a TSO authorization. Additional guidance is contained in FAA Order 8150.1, Technical Standard Order Procedures, and AC 21-1.

a. Applicability.

(1) A TSO authorization must be obtained by persons who desire to manufacture TSO articles (materials, parts, or appliances) under part 21, subpart O, Technical Standard Order. A TSO authorization holder is a manufacturer who controls the design and quality of an article produced under the TSO system, including all related parts, processes, or services under the TSO system, including all related parts, processes, or services procured from outside sources.

(2) The TSO authorization system does not apply to parts produced under a PMA, TC only, or a PC.

(3) A letter of TSO design approval for an appliance may be issued to foreign manufacturers located in countries that the United States has a bilateral agreement and that provides for the mutual acceptance of appliances, providing the following criteria are met:

(a) The CAA of the country in which the appliance will be manufactured certifies to the FAA that the design of the particular appliance meets the pertinent design requirements of the specific TSO.

(b) The CAA's are advised that each appliance which is produced under the provisions of the TSO design approval and exported to the United States must be accompanied by a certificate of airworthiness for export as specified in § 21.502.

b. Advising the Applicant. The applicant shall be advised that:

(1) AC 21-1 contains guidance relative to an acceptable QC system.

(2) A TSO authorization consists of the design and QC system approval.

(3) A TSO design approval can be obtained only for the current TSO for the particular article.

(4) A TSO article cannot be used on a type-certificated product unless a determination has been made that it is compatible with that particular product.

(5) The TSO authorization holder must accept the responsibility as described in paragraph 75 of this order.

71. APPLICATION.

a. An applicant (or an applicant's authorized agent) must submit an application for a TSO authorization by letter to the Manager, Aircraft Certification Office (ACO), in the region in which the applicant's principal manufacturing facility is located. The applicant must submit, along with the application, those documents required by § 21.605, which includes:

- (1) A statement of conformance.
- (2) A copy of technical data.
- (3) A description of the QC system.

b. Foreign manufacturers who desire to obtain a TSO design approval (as provided for in § 21.617) must submit their application through their CAA, to the ACO (or equivalent) which has cognizance over the geographical area in which the foreign manufacturer is located.

72. TSO AUTHORIZATION ISSUANCE PROCEDURE.

a. Design Approval. Guidance concerning TSO design approval methods is contained in part 21, subpart O, and the applicable TSO.

b. Quality Control Data Compliance. The QC data compliance is determined in the following manner:

(1) The applicant for a TSO authorization must submit, along with the application, a written description of the QC system in the detail specified in § 21.143.

(2) At the request of the ACO, the MIO will have the cognizant DO perform a thorough evaluation (in accordance with chapter 11 of this order) of the QC data submitted by the applicant to determine compliance with § 21.143. These data must include an acceptable test procedure to which each production article will be tested. Additional guidance concerning an acceptable QC system is contained in AC 21-1.

(3) The DO shall advise the MIO, within the deadline established by the ACO, as to whether or not these data comply with § 21.605. This time limit must be met so that the ACO can meet the usual time limit in replying to an applicant as established by § 21.605(e).

(4) In those instances where the QC data are found to be unsatisfactory, the DO will communicate QC data deficiencies to the applicant for reconciling all unsatisfactory conditions. When the DO is satisfied that the QC data is in compliance with § 21.605, it will notify the ACO.

(5) Once the TSO authorization is issued, the approved QC data becomes the basis for ensuring continuing compliance with the provisions of part 21, subpart O. Subsequent revisions to these data must be submitted by the TSO authorization holder to the DO to determine compliance with § 21.143. The PI should advise the TSO authorization holder within 30 days of receipt as to whether or not the revision(s) complies with § 21.143 (refer to appendix 1, figure 6, of this order for an example letter).

c. The foregoing procedures also apply to subsequent revisions or actions relative to a TSO authorization. In these instances, special attention should be given to any changes in QC procedures, manufacturing and special processes, etc., to ensure that they are adequate for the particular article to be produced.

73. FACILITY APPROVAL AUDIT.

a. Prior to the original issuance of a TSO authorization, the DO will conduct an audit of the applicant's facility, including any suppliers as appropriate, to determine whether or not the applicant is in compliance with part 21, subpart O. The results of the audits will be submitted to the ACO within the deadline established by the ACO.

b. When determined necessary, the PI will conduct or make arrangements for an audit for any subsequent revisions or additions to the TSO authorization, or when the manufacturer expands or relocates facilities.

74. TSO LETTER OF AUTHORIZATION. Upon a showing of compliance with part 21, subpart O, a letter will be issued by the cognizant ACO in accordance with established procedures. Electronic signature is not permitted. This letter should be amended, as appropriate, to reflect subsequent additions to a manufacturer's original TSO authorization.

75. TSO AUTHORIZATION HOLDER'S RESPONSIBILITY.

a. A TSO authorization holder is responsible for complying with all of the requirements contained in part 21, subpart O, including the reporting requirements contained in § 21.3, the general rules as specified in § 21.607, and any terms or conditions prescribed in the TSO Letter of Authorization.

b. Identification Marking. A TSO authorization holder is responsible for ensuring that only those articles that meet the applicable TSO performance standards are identified as required by § 21.603. Section 21.603(a) states in part ". . . no person may identify an article with a TSO marking unless that person holds a TSO authorization and the article meets applicable TSO performance standards." The intent of § 21.603 is to address the identification of an article with its original TSO identification marking as required by § 21.607(d) at the time of manufacture.

(1) Detail Parts and Invoice Identification. When detail parts are produced for installation in a TSO article, individual detail parts of the TSO article sold separately must be accompanied by a shipping document containing the information required by § 21.607(d) and shall identify the TSO assembly for which they are eligible.

(2) Detail Parts and Design Data Identification. TSO article markings required by §§ 21.603 and 21.607(d) are applied to the top-level assembly for which the original TSO authorization was granted, not subassemblies or individual detail parts. It is not required that each individual subassembly or detail part within the TSO article be marked. The TSO marking requirements for detail parts, which are sold by the original TSO authorization holder for installation into its related TSO articles, are found within the applicable design data for the TSO article. This provides traceability of the individual detail parts to their related TSO articles.

c. Reidentifying Marking. Section 21.603 does not prohibit a certificated person, authorized under § 43.3, from modifying or replacing the original TSO identification marking in accordance with the TSO authorization holder's instructions (e.g., service letters, service bulletins, airworthiness directives, etc.) resulting from an FAA-approved design change. The following guidance applies to the incorporation of design changes to TSO articles that have left the manufacturer's quality control system that require reidentifying of the TSO articles.

(1) There are instances when the holder of a TSO authorization, or a letter of TSO design approval, changes a design and provides data so that these changes may be incorporated into articles in service, through alteration. Service bulletins, service letters, and airworthiness directives are common nomenclature for these type of data, but the data may be transmitted in any appropriate form. Regardless of whether the change is major or minor, as defined in § 21.611, it may be necessary and/or appropriate to reidentify the article.

(2) This reidentification procedure must be part of the FAA-approved data for the entire alteration. The identification markings must comply with the requirements of § 21.607 and the applicable TSO. Some of the reidentification methods expected are making additional marks, making new marks and obliterating the old, installing a new data plate or label provided by the TSO authorization holder, or a combination thereof. Consideration should be given to minimizing confusion as to the status of the article and maximizing traceability to the maintenance and alteration records.

(3) Design changes introduced by persons other than the TSO authorization holder are permissible under § 21.611(c). Order 8150.1 addresses the identification/marketing requirements of TSO articles that are modified by persons other than the TSO manufacturer.

d. Identification Marking of Replacement and Modification Parts Produced Pursuant to the Enhanced Enforcement Program (EEP) as Published in Federal Register Notice, February 27, 1995. Parts produced under the EEP that subsequently were issued TSO authorizations were not eligible at the time of production and are ineligible for marking in accordance with § 21.607(d). Although parts produced under the authority of the EEP are not eligible for part marking, these parts were considered acceptable for sale/installation under the provisions of § 21.305(d). Section 21.305(d) allows parts to be approved in any manner approved by the FAA Administrator. Parts produced under the authority of the EEP continue to be acceptable subsequent to the expiration of the EEP.

76. TSO AUTHORIZATION HOLDER'S FACILITY LOCATION. The same basic guidance contained in paragraph 24 of this order should be followed as applicable.

77. DESIGNATED MANUFACTURING INSPECTION REPRESENTATIVES (DMIR). The holder of a TSO authorization is eligible to have qualified employees designated as DMIR's in accordance with the provisions of part 183. Order 8100.8 contains procedures for the administration of DMIR's.

78. SURVEILLANCE.

a. Assignment of PI. A principal manufacturing inspector should be assigned to each TSO authorization holder to manage all aspects of the TSO authorization. The PI assigned this responsibility

shall conduct surveillance as appropriate to ensure that the holder remains in compliance with the QC requirements applicable to that particular manufacturer (reference paragraph 78b of this order). The PI is also responsible for those functions identified in paragraph 26 of this order, as applicable.

b. Quality Control Requirements. Although QC system/data requirements vary (dependent on the year the authorization was issued), FAA surveillance is applicable to all manufacturers who produce articles under the TSO authorization system. It is, therefore, the PI's responsibility to determine which quality requirements/regulations were in effect on the date each particular authorization was issued and conduct surveillance accordingly. There are two general categories of authorizations as described below:

(1) Manufacturers that hold an FAA Letter of Acceptance or TSO authorization issued before July 1, 1962, are required to have QC data to produce those article(s) in conformance with the standards that were applicable for those article(s) on the date the Letter of Acceptance and/or TSO authorization was issued. These manufacturers were not and are not required to submit QC data to the FAA, but must make these data available to the FAA upon request. In addition, these manufacturers must comply with the requirements of §§ 21.3, 21.607 through 21.615, and 21.619 through 21.621 as required by § 21.603.

(2) Manufacturers which hold a TSO authorization issued after July 1, 1962, are required to have a QC system and QC data as necessary to produce the particular article(s) in conformance with the standards which were applicable for the particular article(s) on the date the TSO authorization was issued. These manufacturers are required to submit their QC data to the FAA along with their application. In addition, these manufacturers must comply with the requirements of §§ 21.3, 21.607 through 21.615, and 21.619 through 21.621 as required by § 21.603.

c. Audits/Evaluations. All audit activity will be accomplished in accordance with chapter 13 of this order. All ACSEP evaluations will be accomplished in accordance with Order 8100.7.

79. ENFORCEMENT ACTIONS. Order 2150.3 should be followed for any violation. Refer to paragraph 27 of this order for additional guidance relative to enforcement actions.

80. SUPPLIER SURVEILLANCE. Refer to chapter 8 of this order for supplier surveillance methods.

CHAPTER 7. DELEGATION OPTION AUTHORIZATION (DOA)
(14 CFR PART 21, SUBPART J)

81. GENERAL. The procedures in this chapter provide guidance relative to the issuance and maintenance of a Delegation Option Authorization (DOA). A DOA is issued under the provisions of 49 U.S.C. § 44702(d), that authorizes the Administrator to delegate such functions. Additional guidance is contained in Order 8110.4.

82. APPLICABILITY. Part 21, subpart J, applies to qualified applicants who desire to obtain a DOA for type, production, and airworthiness certification within limits as prescribed in § 21.231. The applicant must:

- a. Hold a current TC.
- b. Hold a current PC.
- c. Employ a staff of qualified personnel.
- d. Meet all of the other requirements of part 21, subpart J.

83. MAINTENANCE OF ELIGIBILITY. The holder of a DOA is responsible for continued compliance with part 21, subparts G and J, and any other regulatory requirements, as applicable. The DOA holder must also notify the FAA within 48 hours of any change that could affect the ability to meet those requirements.

84. SURVEILLANCE/ENFORCEMENT. The issuance of a DOA does not relieve the FAA from surveillance responsibility since the DOA holder is responsible for maintaining the PC, in addition to complying with the requirements of part 21, subpart J. The PC surveillance procedures that are contained in paragraph 26 of this order apply to all DOA holders. Section 21.249 provides the authority to conduct such surveillance. Enforcement procedures as described in paragraph 27 of this order must also be followed, as appropriate.

CHAPTER 8. SUPPLIER SELECTION, SURVEILLANCE, AND EVALUATION

85. GENERAL.

a. This chapter provides guidance for FAA selection, surveillance, and evaluation of a PAH's supplier facility to assure that the PAH's supplier control system meets the intent of 14 CFR and AC 21-20, Supplier Surveillance Procedures. All supplier surveillance activity will be accomplished and reported in accordance with the procedures referenced in this chapter, as appropriate.

b. Supplier surveillance includes ongoing activities at PAH supplier(s) to evaluate the PAH's quality system implementation. When surveillance identifies findings of noncompliance, the PI should obtain corrective action from the PAH. Additional surveillance tasks are outlined in paragraph 26c of this order.

c. Part 21, subparts F, G, K, and O, require the establishment of a QC system as a prerequisite to issuance of an FAA production approval. The purpose of this QC system is to establish and maintain procedures for ensuring that materials, including materials produced by suppliers, conform to the approved design data and are in a condition for safe operation.

d. It is the PAH's responsibility to ensure that each completed product, part, or appliance, including any materials supplied, conform to the approved design data and are in a condition for safe operation. This responsibility is applicable without regard to:

- (1) Where suppliers may be located.
- (2) Whether suppliers are under direct FAA surveillance.
- (3) Whether the parts received by the PAH have their own certification.
- (4) Whether materials are accompanied by airworthiness approval tags, or their equivalent, issued by the CAA of a bilateral country.
- (5) Whether materials or equipment are supplied by the end product purchaser (CFE, BFE, or GFE).

e. The FAA shall not relinquish its authority for evaluation of suppliers at any location. The FAA may request the assistance of a CAA to act on its behalf to perform surveillance activities in a bilateral country.

86. DISCUSSION.

a. The FAA does not approve suppliers. A PAH may utilize suppliers when it has established an FAA-approved QC system that provides assurance that all parts or services furnished by its suppliers are in compliance with its particular production approval and applicable 14 CFR. The PAH should

place special emphasis on controlling those suppliers that are authorized to ship directly to a user/operator. Each PAH should make available to the FAA a list of its suppliers. The PAH should have objective evidence that it has notified its suppliers that its facilities are subject to FAA surveillance. The FAA must determine if the location of a supplier (when located outside the United States) will place any undue burden on the FAA in administering part 21.

b. Emphasis will be placed on the PAH's control of its suppliers, since the PAH is totally responsible for all of its supplier-furnished parts and services. The FAA will evaluate the PAH's quality system implementation at selected suppliers. FAA surveillance of a supplier shall not be used as a substitute for supplier control by the PAH.

(1) Parts sold (unauthorized sales from a PAH supplier) outside the scope of the PAH authority are considered unapproved as described in FAA Order 8120.10, Suspected Unapproved Parts Program, and will be investigated accordingly. When this occurs, the FAA will issue an LOI to the PAH as part of the investigation into the supplier activity. The LOI is needed to fully document and further the investigation wherever it may lead. However, the PAH should not be held accountable for parts produced outside the scope of its approval without its consent and/or knowledge.

(2) Production overruns by the supplier are sometimes necessary to support manufacturing processes, but the PAH should take measures to prevent suppliers from manufacturing parts without proper authority.

c. The FAA must maximize its efforts and concentrate on those facets of aircraft production and operation that would most benefit safety. While PAH control of all supplier produced products/parts is mandatory, the FAA will focus its surveillance efforts on priority part suppliers. This approach does not imply that the FAA would disregard nonpriority parts. The FAA retains its prerogative to make any inspection or test necessary to determine compliance with the applicable 14 CFR.

87. EXCLUSIONS. The procedures outlined in this chapter do not apply to:

a. Materials for prototype products used in type certification programs.

b. Materials used in completed products submitted for airworthiness certification or approval after a type certificate or design approval has been issued, and prior to a production approval being granted. For example, aircraft submitted for airworthiness certification after the TC for the aircraft has been issued but before the newly TC'd aircraft has been added to the PLR. Such materials would require conformity inspection or verification by the FAA.

88. AUDITS. All audit activity will be accomplished in accordance with the procedures in chapter 13 of this order. A coordination committee composed of a representative from each directorate will confer on a yearly basis in order to avoid duplication of audits at suppliers common to multiple directorates, coordinate resources at suppliers common to multiple directorates, and to identify a lead office to maintain a consolidated PI audit schedule.

89. RESPONSIBILITY OF CERTIFICATE MANAGEMENT MIDO. The MIDO having CM responsibility over a PAH is responsible for:

a. Evaluating the PAH's supplier control procedures to verify that its suppliers are in compliance with its particular production approval. This should include a review of the PAH's receiving inspection records.

b. Verifying that the QC procedures approved for use by the PAH are, in fact, imposed and implemented by the PAH at its suppliers.

c. Determining the need for supplier surveillance in accordance with the criteria contained in paragraph 90 of this order. When supplier surveillance is indicated, the MIDO shall:

(1) Determine the type, i.e., random or ongoing per criteria in paragraph 26c of this order, and extent of surveillance regardless of supplier location.

(2) Conduct surveillance when the supplier facility is located within the geographic boundaries of the MIDO. When a PI audit is used as the means of surveillance, determine the appropriate audit frequency to be used. Establish and maintain a PI audit schedule.

(3) Request supplier surveillance when the facility is located outside of the geographic boundaries of the MIDO, in accordance with the hand-off procedures contained in paragraph 91 of this order.

d. Notifying the PAH of a scheduled PI audit at a supplier.

(1) Notify the PAH in a manner acceptable to the CM directorate when the supplier is located in the United States.

(2) Notify the PAH in accordance with Order 8100.7, paragraph 45, when the supplier is located in other countries or jurisdictions.

e. Initiating compliance and enforcement action(s) against the PAH for any noncompliance that originated at any of its supplier facilities, in accordance with Order 2150.3.

f. Maintaining the results of PI audits conducted at the suppliers.

90. SUPPLIER SURVEILLANCE SELECTION PROCESS.

a. This process will help select suppliers that need surveillance regardless of the type of parts produced. Ongoing surveillance of supplier facilities shall be requested and conducted ONLY when such surveillance can be justified in the interest of safety. It should not be necessary to conduct surveillance at a supplier facility when it is established that the PAH makes all conformity and safety determinations of parts or materials upon receipt in compliance with its QC procedures and applicable regulations. Nothing shall preclude the MIDO from conducting random or audit surveillance as deemed appropriate. Suppliers with satisfactory evaluations may be subject to future reassessments in accordance with paragraph 93 of this order.

b. The guidelines outlined below, along with an analysis of all assimilated data from all available sources, shall be considered in determining the necessity for supplier surveillance:

(1) Is the supplier a priority or nonpriority part supplier? Added consideration should be given to priority part suppliers.

(2) Are there in-process inspections which cannot be determined at final inspection?

(3) Are the supplier's parts inspected and all conformity and safety determinations made by the PAH upon receipt at the PAH's facility? When at the supplier facility, are all inspections and tests completed by the PAH (PAH source inspector, vendor quality assurance representative, etc.) to verify that the part conforms to the FAA-approved design using the PAH's FAA-approved quality system and associated data? The PAH may allow a supplier to perform an appropriate inspection/major inspection when it has established that the supplier is capable of performing such inspection functions (see AC 21-20).

NOTE: These suppliers should be removed from continuing surveillance unless extenuating circumstances warrant continued surveillance, such as PAH and/or supplier deficiencies found in the quality system, supplier control, manufacturing, or other areas that would preclude using that supplier.

(4) Does the supplier have a good quality history? If there have been recent problems relative to quality issues, the PI may request an unscheduled ACSEP evaluation in accordance with Order 8100.7.

(5) What is the supplier's production rate? Does the production rate warrant selection for special evaluation?

(6) Has the PAH delegated authority for direct shipping, MRB, inspection, acceptance, etc.?

(7) Does a review of available information identify concerns such as airworthiness directives, service difficulty reports (SDR's), PAH internal audit results, or PAH enforcement status relative to supplier control?

(8) Has there been any indication of Suspected Unapproved Part (SUP) activity involving this supplier?

(9) Does the PAH have designees appointed at the supplier?

91. HAND-OFF PROCEDURE. When the MIDO having PAH CM responsibility has determined that supplier surveillance is necessary, and the supplier is located outside of its geographic boundary, the following hand-off procedure shall be used:

a. A memorandum requesting surveillance shall be forwarded to the MIDO having geographic responsibility of the area in which the supplier is located. The initiating memorandum shall indicate the type of surveillance that should be conducted.

NOTE: The MIDO having PAH CM responsibilities should have preliminary discussions with the MIDO having geographic responsibilities for the supplier prior to the issuance of the hand-off memorandum. This is to assure that both FAA offices agree on the method of surveillance.

b. The CM MIDO will include in its memorandum all pertinent information including, when appropriate:

(1) The name and address of each supplier and the responsible PAH.

(2) A general description or classification of the part, e.g., fabricated sheet metal parts; forging; machined parts; or service(s), e.g., heat treatment; welding; or nondestructive testing. The FAA evaluators may obtain part information directly from the PAH representative or supplier.

NOTE: When a priority part supplier produces multiple material parts, the requesting MIDO need not identify all part numbers. The FAA's evaluation emphasis needs to be on the status of the PAH's quality system as it relates to the supplier.

(3) Any delegation of MRB and/or technical data change control authority.

(4) The name, title, and telephone number of the person to contact at the supplier and PAH facilities who can furnish purchase order(s), QC data, technical data, and other pertinent information to the FAA.

(5) A copy of the PAH's, or supplier's, QC procedures that are required to be implemented at the particular supplier's facility, unless these documents are available to the FAA at the supplier facility.

(6) Any authority granted by the PAH that permits direct shipment to the end user. In these instances, the PAH must provide written authorization to the supplier of any direct shipment authority and establish procedures that will ensure that the shipped parts will conform to the type design and are in condition for safe operation. The procedures must also provide for the supplier's shipping documents to reflect the identity of the PAH who granted the authorization. This would not apply in the case of associate facilities when the approved QC procedures provide adequate control for such direct shipment.

(7) Any other information such as a timeframe, specific major function, new processes, new technology to be evaluated, etc., should be included when deemed necessary.

92. RESPONSIBILITY OF GEOGRAPHIC MIDO. When a geographic MIDO receives a request for surveillance of a supplier facility located within its geographic boundaries, the MIDO shall:

a. Schedule and conduct the requested surveillance at the supplier's facility. Include the supplier in the overall work program only when ongoing surveillance has been determined necessary for a particular supplier. When a PI audit is used as the means of surveillance, determine the appropriate audit frequency to be used. Establish and maintain a PI audit schedule.

b. Advise the requesting office of the receipt of the surveillance request and proposed

implementation. Forward the completed FAA Form 8120-2, Production Project Control, including surveillance recommendations, to the requesting office.

c. Notify the PAH of a scheduled PI audit at a supplier.

(1) Notify the PAH in a manner acceptable to the CM directorate when the supplier is located in the United States.

(2) Notify the PAH in accordance with Order 8100.7, paragraph 45, when the supplier is located in other countries or jurisdictions.

d. Follow Order 2150.3 for any noncompliance to 14 CFR. Promptly report any noncompliance and provide the objective evidence to the requesting MIDO for appropriate enforcement action against the PAH.

e. Prepare and provide a copy of Form 8120-2 annually when ongoing surveillance is requested. The copy of Form 8120-2 shall be submitted to the CM office.

f. Maintain the results of PI audits conducted at the suppliers.

93. SUPPLIER REASSESSMENT PROCESS. The originating MIDO shall reassess supplier status annually to determine the need for retaining or canceling FAA supplier surveillance. This assessment should coincide with the preparation of Form 8120-2. The assigned inspector may make use of PAH databases and records, as well as FAA databases including the Manufacturing Inspection Management Information System (MIMIS), Enforcement Information System, SUP, ACSEP, SDR's, and the Accident/Incident Information Data System, in making the reassessment. Upon completion of the reassessment, the originating MIDO must notify the geographic MIDO of any changes requested in surveillance activity.

94. DIRECT SHIPMENT BY SUPPLIERS. Suppliers may ship replacement and modification parts directly to the end user without the parts first being processed through the PAH's receiving inspection facilities only if the PAH:

a. Authorizes in writing, direct ship authority to the supplier.

b. Has FAA-approved procedures in place containing controls to compensate for the absence of inspection normally conducted at the PAH's facility, e.g., receiving inspection, and test.

c. Ensures that each part so shipped is accompanied by a shipping ticket, invoice, or other document containing a declaration that the individual part was produced under the terms of the production approval. The shipping document should also identify the product on which the part is eligible for installation. When Form 8130-3 is used for this purpose, the direct ship authorization will be annotated in accordance with FAA Order 8130.21, Procedures for Completion and Use of FAA Form 8130-3, Airworthiness Approval Tag.

d. Provides the appropriate part marking information to the supplier to apply to the modification or replacement part before it is shipped.

- e. Advises the FAA office that has jurisdiction over the PAH's facilities of each authorization.
- f. Holds an exemption to § 21.325(b)(3), granted by the FAA, when the supplier is located outside of the United States.

95. CAA ASSISTANCE.

a. When a supplier is located in a country with which the United States has a bilateral agreement with component conformity provisions, the FAA may request surveillance activities and conformity certifications to be performed on its behalf by the appropriate CAA. The responsible FAA office will contact the CAA and arrange and/or coordinate the requested activity. The FAA request shall include specific instructions to the CAA concerning the extent of surveillance to be conducted on its behalf. Also, the request should specify the standardized evaluation criteria contained in Order 8100.7 that are associated with the top four problematic system elements identified in the most recent annual ACSEP report. Under the provisions of a BASA IPA, it is acceptable for the CAA to use their own policies and procedures when providing technical assistance to the FAA. When the CAA agrees to conduct the activity, they would be responsible to then submit findings or observations to the FAA for review and disposition.

b. If the CAA does not agree to conduct the activity or if mutual agreement cannot be reached on the criteria to be used, the FAA must perform the required surveillance. In this instance, the FAA must determine whether an undue burden exists. When the FAA conducts its own surveillance activities, the CAA of the supplier shall be invited to observe or participate in such surveillance activities, as mutually agreed upon.

96. GEOGRAPHIC RESPONSIBILITIES FOR INTERNATIONAL SUPPLIER

SURVEILLANCE. For the purpose of surveillance of international suppliers, the responsibility to identify, select, and schedule facilities to be evaluated is the responsibility of the Directorate(s) having CM responsibility over the PAH(s) who utilizes the international supplier. Additionally, for suppliers of aircraft-related products manufactured in the following countries, contact the FAA office as indicated below.

a. Canada, Greenland, the Middle East, and the continents of Europe and Africa, contact the Engine and Propeller Directorate, Manager, Manufacturing Inspection Office, ANE-180.

b. Mexico or Central America, contact the Rotorcraft Directorate, Manager, Manufacturing Inspection Office, ASW-180.

c. Virgin Islands, Caribbean nations, and South America, contact the Small Airplane Directorate, Manager, Manufacturing Inspection Office, ACE-180.

d. Australia, Asia, and Pacific Rim nations, contact the Transport Airplane Directorate, Manager, Manufacturing Inspection Office, ANM-108.

NOTE: In the interest of cross-utilizing FAA personnel to the maximum extent practicable, assistance of any other Aircraft Certification Service personnel may be requested by the responsible directorate in arranging for supplier surveillance.

97. OVERSIGHT OF U.S. SUPPLIERS TO FOREIGN MANUFACTURERS, REPAIR STATIONS, OR AIR CARRIERS.

A U.S. manufacturer that has entered into a supplier, subcontractor, or other similar relationship with a foreign manufacturing entity (e.g., a manufacturer of aircraft, aircraft engines, or propellers; a repair station; or an air carrier) may produce, identify, and deliver civil aeronautical products and parts to that entity without obtaining an FAA design and production approval under part 21. The purchase order from the foreign manufacturer to the supplier manufacturer should provide any evidence of the sales relationship to the FAA as needed. These products and/or parts are to be produced in support of a design approval issued by a CAA, to include modifications made to a type design by repair stations or air carriers (e.g., TC, STC, CAA-approved modification). The regulatory responsibility for control or oversight of a U.S. manufacturer acting strictly as a supplier to a foreign manufacturing entity resides with the CAA having oversight of that design and/or production approval. The FAA assumes no regulatory responsibilities for these programs, and will only provide assistance in surveillance of the U.S. supplier through a special written arrangement with the CAA under the provisions of the bilateral agreement.

98.-119. RESERVED.

CHAPTER 9. INVESTIGATION OF SERVICE DIFFICULTIES

120. GENERAL. The procedures in this chapter provide guidance for conducting/participating in service difficulty investigations. Additional guidance is contained in FAA Order 8010.2, Flight Standards Service Difficulty Program.

a. Source. There are various means by which the FAA obtains information regarding service difficulties in TC products; for example:

- (1) Manufacturer's notification of failures, malfunctions, and defects (reference §§ 21.3 and AC 21-9, Manufacturer's Reporting Failures, Malfunctions, or Defects).
- (2) Mechanical Reliability Report (MRR) (reference §§ 121.703 and 135.415).
- (3) Mechanical Interruption Summary Report (MIS) (reference §§ 121.705 and 135.417).
- (4) Repair station reports of unairworthy conditions (reference § 145.63).
- (5) Accident and Incident Report (reference 49 U.S.C., Sub-Chapter III, Sections 1131 through 1136).
- (6) User complaints (general public, military, and foreign governments).
- (7) Reports and information received from other FAA and government offices.

b. MIO and ACO Evaluation. Upon receipt of a service difficulty report, the MIO having CM over the manufacturer of the product or article involved will evaluate the information and determine if design or production deficiencies are involved. The CM ACO is responsible for corrective action to any design deficiencies.

(1) **MIO Responsibilities.** When the MIO evaluation indicates that the failure, malfunction, or defect is attributable to deficiencies in the manufacturer's quality control/inspection system, the information will be forwarded to the CM DO along with a request for an investigation.

(2) **MIDO Responsibility.** The MIDO will assign a high priority to service difficulty investigations, which must be completed as expeditiously as possible. The identity of a firm or private person reporting service difficulties to the FAA will not be revealed to the manufacturer. The FAA must witness any tear-down inspections or testing to be performed on defective products or articles when such products/articles are flagged (by FAA tags or forms) as requiring the presence of an FAA inspector during the tear-down, inspection, or test, as applicable.

121. INVESTIGATION. The assigned manufacturing inspector will make an investigation, independent of that performed by the manufacturer, of service difficulties, in accordance with the criteria contained in Order 8010.2. The inspector will also evaluate, and include in the report, the results of any investigation conducted by the manufacturer.

122. CORRECTIVE ACTION. The MIDO shall formally request that corrective action be taken by the manufacturer when the investigation discloses unsatisfactory conditions in conformity, QC, or workmanship. In such cases, particular emphasis must be placed on determining by examination or reexamination of all related QC practices, data, records, etc., whether the discrepancy may also involve products and parts thereof in service, in the manufacturing process, or spares, either in storage or shipped to users. If justified, airworthiness directive action should be recommended to the CM ACO.

123. REPORTING SERVICE DIFFICULTIES.

a. Report to MIO. A report of service difficulty investigation will be prepared and submitted to the MIO in accordance with this order, Order 2150.3, and Order 8010.2. The report may be in the form of a memorandum and/or any other manner acceptable to the MIO and will include as a minimum, the following information:

- (1) Name and address of manufacturer.
- (2) Type and number of certificates or approvals held.
- (3) Make, model, and part number, as appropriate, to positively identify the defective product and part thereof.
- (4) Make and model of product/part affected.
- (5) Inspector's statement of findings, including an evaluation of any investigation conducted by the manufacturer.
- (6) Inspector's conclusion as to the cause of the service difficulty.
- (7) All corrective actions requested by the DO and/or taken by the manufacturer including a copy of the DO letter to the manufacturer and the manufacturer's reply.
- (8) Effect on products in service.
- (9) Recommendations and/or further actions required.

b. Interim Report. In the event that the investigation is delayed for any reason, an interim report of service difficulty investigation outlining the progress of the investigation will be forwarded in a memorandum to the MIO.

c. Violations. When the service difficulty report and the subsequent investigation indicate that a violation exists, the investigating and reporting procedures in Order 2150.3 will also be followed.

d. DOA Reports. Upon notification by the FAA, DOA manufacturers are required by § 21.277 to investigate and report to the FAA the results of their investigation and any action taken or proposed. These reports should be forwarded to the MIO and geographical ACO, which should initiate any actions deemed appropriate for the particular service difficulty involved.

124. FOREIGN MANUFACTURERS. Foreign manufacturers are exempted from the reporting requirements of § 21.3. When foreign manufactured products or articles approved under §§ 21.29, 21.183(c), 21.500, or 21.502 are involved in service difficulties, the MIO in the directorate that the service difficulty occurred will require an investigation. A complete report will be provided to the MIO and Standards Staff of the Directorate having geographical responsibility over the particular country where the product manufacturer is located. Upon receipt and evaluation of the report, the MIO having geographical responsibility will bring the matter to the attention of the CAA for further investigation and corrective action as necessary. If critical parts, processes, or methods are involved, airworthiness directives or alert bulletin action should be considered. If the condition is serious and affects safety and if adequate corrective action is not immediately forthcoming from the foreign manufacturer or CAA, action under § 13.19 would also be necessary. Coordinate such enforcement action through AGC-300, AIR-4, and the State Department.

125.-130. RESERVED.

CHAPTER 10. IMPORT

131. GENERAL.

a. The procedures in this chapter provide guidance relative to the acceptance of aircraft, engines, propellers, materials, appliances, and replacement/modification parts imported into the United States. Additional guidance is contained in Order 8130.2 and AC 21-23, Airworthiness Certification of Civil Aircraft, Engines, Propellers, and Related Products Imported to the United States.

b. These procedures only apply when the United States has a bilateral agreement with the country of manufacture that provides for the acceptance of such aircraft, engines, propellers, materials, appliances, and replacement/modification parts. It is suggested that pertinent bilateral agreements (reference <http://www.faa.gov/avr/air/air4/Baalst.htm>) be referred to when there is any question as to applicability.

c. For the purpose of these procedures, the following definitions apply:

(1) "Product" is an aircraft, engine, propeller, appliance(s), and/or part(s) thereof.

(2) "Aircraft" is a civil aircraft of all categories, whether used in public transportation or for other purposes, and includes replacement and modification parts thereof.

(3) "Engine" is an engine intended for use in aircraft and includes replacement and modification parts thereof.

(4) "Propeller" is a propeller intended for use in aircraft and includes replacement and modification parts thereof.

(5) "Appliance" is any instrument, equipment, part, mechanism, apparatus, appurtenance, or accessory including communications equipment that is used, or intended to be used in operating or controlling an aircraft in flight. Additionally, "appliance" is installed in, intended to be installed in, or attached to the aircraft, and includes replacement and modification parts thereof, but is not part of an airframe, engine, or propeller.

d. For the purpose of these procedures, either the CAA of the country of manufacture or designees that are appropriately authorized by the CAA may issue a certifying statement required from the country of manufacture.

132. AIRCRAFT. Sections 21.183(c) and 21.185(c) provide for the acceptance of any foreign manufactured aircraft for which a § 21.29 (or CAR 10) TC has been issued when the country in which the aircraft was manufactured certifies, and the FAA finds, that the aircraft conforms to the type design and is in a condition for safe operation.

133. PROPELLERS/ENGINES. Section 21.500 provides for the acceptance of an engine or propeller manufactured in a foreign country, when the holder or licensee of a U.S. TC furnishes an Export Certificate of Airworthiness issued by the CAA of the country of manufacture which certifies the engine or propeller:

- a. Conforms to its U.S. TC and is in a condition for safe operation.
- b. Has been subjected to a final operational check by the manufacturer.

134. APPROVAL OF MATERIALS, PARTS, AND APPLIANCES. Section 21.502 provides for the acceptance of materials, parts, and appliances manufactured in a foreign country where there is an agreement with the United States for the acceptance of these materials, parts, and appliances. Such materials, parts, and appliances are considered approved when the country of manufacture certifies that the individual material, part, or appliance conforms to the FAA-approved design and is in a condition for safe operation. It should be noted that the certification for appliances does not include installation approval. Accordingly, installation approval for appliances must be obtained in a manner acceptable to the FAA for each particular product on which the appliance is to be installed. Pursuant to these international agreements (e.g., BAA's and Bilateral Aviation Safety Agreements (BASA's), or other documents), the United States will consider materials, parts, or appliances imported to the United States for installation on U.S.-registered aircraft to meet all applicable approval requirements when:

- a. The imported material, part, or appliance is covered under the scope of the agreement with that country.
- b. The imported material, part, or appliance is accompanied by a completed airworthiness document (e.g., JAA Form One) from the BAA/BASA country's CAA.
- c. The airworthiness document certifies that the material, part, or appliance meets the requirements of part 21.
- d. The airworthiness document certifies that the material, part, or appliance is eligible for installation on the bilateral country's product exported to the United States.

135. SERVICE DIFFICULTIES-IMPORT. Any service difficulties encountered with foreign manufactured aircraft, engines, propellers, materials, appliances, or replacement/modification parts imported into the United States should be handled in accordance with the instructions provided in paragraph 124 of this order.

136. NON-CERTIFIED REPLACEMENT OR MODIFICATION PARTS. Except as otherwise authorized by the FAA, foreign-manufactured replacement or modification parts which are imported into this country without benefit of a CAA certification cannot be accepted for use on U.S. type-certificated aircraft, engines, or propellers (reference § 21.502).

137.-140. RESERVED.

CHAPTER 11. REVIEWING AND APPROVING QUALITY CONTROL/INSPECTION SYSTEM DATA

141. GENERAL. The cognizant MIDO must thoroughly review all data submitted by a PAH that describes the quality control or inspection system required for the applicable production approval. This data may include a quality manual, procedures, policies, standards, instructions, and/or processes. Any inadequacies in the data submitted must be identified to the PAH for corrective action. After the data has been reviewed, and any applicable corrective actions taken, the MIDO will approve or accept the data, as applicable.

142. DATA REVIEW. All quality control or inspection system data submitted to the cognizant MIDO must be reviewed to ensure that:

- a. The described quality control or inspection system will adequately provide for the consistent acceptance of only those products or parts thereof which are in conformity with the approved design data and are in a condition for safe operation.
- b. The quality control or inspection system is adequately described, meets the intent of the pertinent rules, and can be realistically implemented. Be wary of data that is overly descriptive, since such data may often be difficult to implement.
- c. The data are identified by title, revision, and date, and contain the signature of the appropriately authorized person in the PAH's organization.
- d. The data is well organized, unambiguous, and not subject to misinterpretation.
- e. Inspection procedures are well organized and easy to understand and implement.

143. REVIEW OF CHANGED DATA. The initial review of a PAH's quality control or inspection system data must be thorough and comprehensive. Subsequent review of a PAH's data may consist of:

- a. A cursory review of previously submitted data to determine whether or not it is still adequate.
- b. A thorough review of any data which has been revised since the last review.
- c. A thorough review of any new data that has been developed and implemented since the last review, e.g., review of the quality assurance provisions of a new bonding process introduced subsequent to the last review.

144. DATA APPROVAL/ACCEPTANCE STANDARDS.

a. **PC or TSO Authorization Holder.** The cognizant MIDO will determine the adequacy of the data reviewed in accordance with paragraph 142 above. Any inadequacies in the data submitted must be identified to the PAH for corrective action. After the data has been reviewed, and any applicable corrective actions taken, the MIDO will approve the quality control data submitted by the PAH. This

data, the pertinent 14 CFR, and the FAA-approved design data comprise the standards with which the PAH must show continued compliance.

b. APIS or PMA Holder. The cognizant MIDO will determine the adequacy of the data reviewed in accordance with paragraph 142 above. Any inadequacies in the data submitted must be identified to the PAH for corrective action. After the data has been reviewed, and any applicable corrective actions taken, the MIDO will accept the inspection system data submitted by the APIS or PMA holder. The FAA does not approve this data since there is no part 21 requirement for submittal of this data for approval. This data, the pertinent 14 CFR, and the FAA-approved design data comprise the standards that will be used when conducting surveillance activities at the APIS or PMA holder.

145.-150. RESERVED.

CHAPTER 12. RECORDS AND REPORTING REQUIREMENTS

151. GENERAL. This chapter supplements and/or supersedes the records and reporting requirements contained in Order 1380.48.

152. PRODUCTION PROJECT CONTROL, FAA FORM 8120-2. This form is used to record pertinent information concerning each manufacturer holding an FAA production approval.

a. Preparation. This form will be prepared by the DO in accordance with instructions contained on the face of the form (reference appendix 1, figure 9 of this order). Supplemental instructions are as noted below:

(1) Inactive Projects. A production project that has been inactive during the preceding three-month period will be reported as inactive. A project that is inactive for one year should be canceled and reported as such, when no further production or shipment of spare parts is anticipated. If reactivated at a later date, it will be reported as "reopened" and the same project number originally assigned will be used.

(2) Military Products. When a project involves FAA participation in military procurement of civil products, the military model designation and the manner in which the FAA indicates individual approval will be included in item 13.

(3) Remarks Section. Item 13, "Remarks," should include as much information as possible regarding the current workload and future trends for each project. Use the reverse side of the form if more space is needed. The expiration date of the period specified in or extended under § 21.123(c) should be shown for each type-certificated product and model being produced under a TC only. An MMF comment should be included, when applicable.

NOTE: If the production approval is issued based on a licensing agreement that is for a specific period of time, the time period will be indicated under "Remarks."

(4) Reporting Time Expended. Time expended on specific projects should be reported in accordance with Order 1380.48.

b. Distribution. The original form will be forwarded to the MIO and a copy retained by the originating DO.

c. Retention Schedule. Refer to FAA Order 1350.15, Records Organization, Transfer, and Destruction Standards.

d. Alternative Reporting Method. MIMIS reports may also be used to satisfy the requirements of this paragraph.

153. PRODUCTION CERTIFICATION PROJECTS STATUS LISTING, FAA FORM 8120-6.

This form identifies the current production project activities at the Aircraft Certification Directorates.

a. Preparation. This form will be prepared by the MIO of each directorate in accordance with the preparation instructions in appendix 5 of this order.

b. Retention Schedule. Refer to Order 1350.15.

c. Alternative Reporting Method. MIMIS reports may also be used to satisfy the requirements of this paragraph.

154. CONFORMITY INSPECTION RECORD (CIR), FAA FORM 8100-1. The CIR is an internal FAA document that should be used as a worksheet to record any conformity inspections conducted to determine compliance with the applicable 14 CFR during type certification programs. This form may also be used as a worksheet during any production surveillance activity to supplement the official surveillance records and also for any inspections, as appropriate, during airworthiness certification.

a. Preparation. The CIR will be prepared in accordance with the instructions shown on the form (reference appendix 1, figure 10, of this order and Order 8110.4, appendix 4, figure 3).

b. Distribution. The CIR should be distributed in accordance with established MIO procedures.

c. Retention. The CIR should be destroyed when it has been determined that its continued retention would serve no useful purpose.

155. REQUEST FOR CONFORMITY (RFC), FAA FORM 8120-10. The RFC is an internal FAA document that should be used to request conformity inspections during any appropriate program. This form will be used when the responsible DO requires a conformity inspection at a facility outside of its geographical boundary.

a. Preparation. The RFC is self-explanatory (reference appendix 1, figure 13, of this order and Order 8110.4, appendix 4, figure 4).

b. Retention. The RFC should be destroyed when it has been determined that its continued retention would serve no useful purpose.

156. RECORD OF FINDINGS/OBSERVATIONS, FAA FORM 8100-6. This form will be used to record findings and/or observations discovered during all production surveillance activity.

a. Preparation. Prepare this form in accordance with the instructions in appendix 3 of this order.

b. Supporting Data. Any data that is necessary to substantiate a finding or observation will be forwarded, when appropriate, to the cognizant DO for its use and retention as necessary. These data may consist of:

- (1) Copies of inspection records, forms, documents, etc.

- (2) Pictures of parts.
- (3) Certified true copy of data.
- (4) Any other data considered necessary to substantiate the finding.

c. Distribution of Form(s) 8100-6 When Evaluations Are Conducted Within the Directorate. Form(s) 8100-6 that have been generated as a result of any surveillance activity conducted in the directorate having CM responsibility for the particular facility will be distributed as follows:

(1) When the PI or DO conducts an evaluation, the original form(s) will be retained in the cognizant DO.

(2) When an ACSEP evaluation is conducted, distribute the form(s) in accordance with Order 8100.7.

(3) Any form(s) generated during an APIS or PC Board should become a part of the Board minutes and will be distributed in accordance with the instructions contained in paragraph 38 of this order.

d. Distribution of Form(s) 8100-6 When Evaluations Are Conducted Under Hand-off Procedures. Any Form(s) 8100-6 generated as a result of surveillance conducted under the hand-off procedures specified in paragraph 91 of this order will be distributed as follows:

- (1) The original form(s), along with any supporting data, will be forwarded to the CM MIDO.
- (2) A copy of the form(s) will be retained by the geographic MIDO.

e. Retention Schedule. Form(s) 8100-6 generated during all surveillance activities except ACSEP evaluations may be retained for a period of two years. See Order 8100.7 for form(s) generated during ACSEP evaluations.

157. SURVEILLANCE ACTIVITY REPORT, FAA FORM 8120-14. This form is the official record for all types of surveillance activity. Only one Form 8120-14 is required for each facility or portion of facility evaluated, regardless of the number of production approval projects involved, or the number of system elements evaluated.

a. Preparation. Prepare this form in accordance with the instructions in appendix 2 of this order.

b. Distribution. Form 8120-14 will be distributed in the same manner described in paragraphs 156c and 156d of this order for Form 8100-6.

c. Retention Schedule. The form may be retained by the originating office for a period of two years. The report should be retained by the office having CM responsibility. All other offices may destroy their copies of the report at their discretion, but no later than two years.

158. RELEASE OF INFORMATION TO THE PUBLIC.

a. The contents of Form(s) 8100-6 and 8120-14 constitute findings and observations made by the FAA in the enforcement of the applicable 14 CFR. Therefore, any information contained in those forms shall be handled as confidential material. Each of these forms is marked "For Official Use Only." This classification does not prohibit the transmittal of summarized findings and observations to the manufacturer.

b. Under no circumstances will findings or observations be revealed to anyone other than the particular manufacturer involved, unless processed in accordance with the FAA Order 1200.23, Freedom of Information Act (FOIA).

c. Since a supplier is considered an extension of the certificate holder, the supplier should be orally advised of any findings or observations noted, **BUT ONLY THOSE FINDINGS CONCERNING SERVICES PERFORMED ON BEHALF OF THE PARTICULAR CERTIFICATE HOLDER.** Findings or observations made at a certificate holder's facility shall not, under any circumstance, be revealed to the suppliers or to any other source.

d. Requests for copies of any FAA forms, or any information contained therein, shall be processed in accordance with the provisions of the FOIA.

e. Requests for copies of the CIR's shall also be processed in accordance with the provisions of the FOIA.

159.-164. RESERVED.

CHAPTER 13. AUDITS

165. GENERAL. As indicated in paragraph 26c of this order, FAA surveillance includes audit activity as a basic function. FAA audits include PI audits and DO audits.

166. PI AUDIT. A PI audit consists of selecting a limited number of procedures in a PAH's approved quality or inspection system and evaluating compliance to the standards by the PAH. (Refer to paragraph 169 of this order.) It may also consist of selecting a limited number of purchase order and/or quality requirements from a PAH at a supplier, and evaluating the PAH's supplier control system. This audit is not considered to be an ACSEP evaluation and is conducted solely by the PI. However, the PI may request specific technical assistance, when necessary.

a. PAH Facility. Use the standardized evaluation criteria for the 17 system elements identified in Order 8100.7 to evaluate compliance to the applicable standards. Initial emphasis should be placed on the evaluation criteria associated with the top four problematic system elements identified in the most recent annual ACSEP report. Remember that some of the 17 system elements, however, may not be related to the pertinent 14 CFR or FAA-approved data, such as a quality manual.

b. Supplier Facility. Use the evaluation criteria in Order 8100.7 that are associated with the top four problematic system elements identified in the most recent annual ACSEP report to evaluate compliance with a PAH's purchase order flow-down of technical and quality requirements.

167. DO AUDIT. District office audits consist of evaluating a manufacturer's production facilities in accordance with the standards identified in paragraph 169 of this order. The cognizant MIDO manager will select a team to conduct this audit. The team may consist of the cognizant PI and at least one other manufacturing inspector or the MIDO manager. It is also recommended that an engineer be a team member, when deemed necessary due to the type and complexity of processes and procedures being utilized at the facility. The standardized evaluation criteria contained in Order 8100.7 may be used as an aid to evaluate compliance to the applicable standards. Some of the evaluation criteria, however, may not be related to the pertinent 14 CFR. These audits are not considered to be an ACSEP evaluation and normally will be conducted for the following reasons:

a. Preliminary evaluation of a manufacturer's facilities prior to the establishment of an APIS or PC Board.

b. Original TSO authorization facility evaluation.

c. Original PMA facility evaluation.

d. Evaluation of supplier facilities when deemed necessary.

168. GEOGRAPHICAL RESPONSIBILITY. The MIDO having CM responsibility over a particular manufacturer is responsible for the accomplishment of all audits at any facilities that are located within its area of responsibility.

169. STANDARDS. The standards to be used in conducting audits are defined in paragraphs 144a and 144b of this order.

170. RECORDING FINDINGS AND OBSERVATIONS. Record all findings and observations on Form 8100-6, or electronic equivalent, in accordance with the guidelines in appendix 3 of this order. WRITE A FINDING AGAINST THE RESPONSIBLE PAH, ASSOCIATE FACILITY, OR DELEGATED FACILITY.

a. When the requirements of multiple PAH's or associate facilities are being evaluated at a supplier, determine whether the finding is applicable to more than one PAH or associate facility. If the finding is applicable to more than one PAH or associate facility, make multiple copies of the objective evidence as required to support each Form 8100-6 being sent to the responsible CM MIDO's and ACO's.

b. When a facility holds multiple production approvals, base the finding or observation on the highest level quality requirement. For surveillance purposes, the quality levels from highest to lowest are PC, TSO authorization, APIS, and PMA. Findings and observations at a DOA, supplier, or satellite MMF are processed separately.

c. Immediately notify the responsible PI when a suspected safety-related noncompliance is discovered. Within 72 hours of notification, the PI will submit formally in writing the finding to the responsible PAH, associate facility, or DOA facility. If the noncompliance affects delivered products or services, the PI will secure from the responsible PAH, associate facility, or DOA facility a list of the end users affected and immediately notify the cognizant ACO, MIO, or MIDO. Any safety-related noncompliance that is verified by the PI as requiring immediate action shall be recorded as a safety finding.

(1) An isolated observation does not include a safety-related noncompliance that requires immediate action. However, an isolated incident of noncompliance with § 21.3 is considered safety-related when it meets the definition in appendix 3 of this order.

(2) Ensure that any suspected safety-related noncompliance with FAA-approved data or with an APIS or PMA quality manual that requires immediate action is brought directly to the attention of the responsible PI.

171. CORRECTIVE ACTION. The PI having CM responsibility is responsible for initiating and ensuring that corrective action has been taken on all audit findings and observations.

a. The PI should request orally to the PAH to take immediate corrective action, when a finding or observation is made which could have an immediate adverse impact on safety. When such findings or observations are noted during any audit activity being conducted at a supplier facility, the finding or observation will be transmitted to the PI having CM responsibility for immediate action with the responsible PAH. This type of finding or observation must be submitted formally in writing to the PAH within 72 hours.

b. All other findings and isolated observations will be formally transmitted to the PAH, along with a request for immediate corrective action, within 20 days from the completion of the audit. The letter of

transmittal will identify the findings and isolated observations in a summary form which factually and concisely identifies the specific noncompliance(s). When it has been determined that the finding(s) or isolated observations constitute a violation to the rules, the transmittal should be prepared as an LOI in accordance with Order 2150.3. Title 14 CFR observations that reveal deficiencies in QC data that were originally approved by the FAA (refer to paragraph 27b of this order) should not be included in an LOI.

c. The PI may elect to visit a facility to verify that agreed upon corrective actions have been implemented. The PI may also accept a PAH's written commitment that the required corrective actions have been taken, when such confidence in the PAH is justifiable. When there are any corrective actions which are required to be verified at a supplier facility located outside of the PI's geographical boundary, the verification should be accomplished by using the hand-off procedures described in paragraph 91 of this order.

d. The PI will determine which corrective actions are actually necessary to reconcile a finding.

172.-184. RESERVED.

CHAPTER 14. PRODUCT AUDIT FUNCTION

185. PURPOSE. This chapter establishes the procedures for the implementation of product audits. The product audit will evaluate the effectiveness of the quality control system and the airworthiness of products utilizing critical dimensional characteristics and/or critical processing attributes generated during the manufacturing cycle.

186. GENERAL. The product audit can be used as a direct measurement of the effectiveness of the approved implemented quality control program.

a. The product audit shall be initiated at the detail part level and progress through the subassembly and assembly cycle until final assembly of the product.

b. An exact sampling program cannot be specified as to the number of audits that need to be conducted. The number will depend directly upon the results of the previous audit. The auditor should conduct as many audits as necessary to provide confidence that the quality control system is effective. Factors such as those listed in paragraph 188 of this order should be utilized for the preparation of the listing.

187. DEFINITIONS. For purposes of this chapter, the following definitions apply:

a. Critical dimensional characteristics are those where mandatory conformance is required. Failure to maintain conformity could cause loss of function and create an unsafe condition.

b. Critical process attributes are those where mandatory conformance is required and a lack of conformity directly affects the product and could cause failure or create an unsafe condition.

188. SELECTION OF CHARACTERISTICS. The selection of the critical dimensional characteristics and/or critical process attributes shall be governed by utilizing the following:

a. Known service problem areas, by obtaining feedback from the FAA Data Center prior to the start of the product audit.

b. Characteristics/attributes that are operator controlled.

c. Characteristics/attributes that cannot be verified except by destructive test of each item or extensive disassembly.

d. Characteristics/attributes classified as critical, as defined by the certificate holder's engineering drawings, process specifications, test specifications, and quality control procedures.

189. CATEGORIES OF AUDITS. The audits shall be divided into the following categories:

a. Assembly of Final Product.

b. Subassembly.

- c. Detail Parts.
- d. Raw Material.

190. AUDIT CRITERIA. The audit criteria that shall be used in the performance of an audit are listed below to establish conformity to approved type design data:

a. On Assembly of Final Product.

- (1) Operational/functional.
- (2) Dimensional.
- (3) Workmanship.
- (4) Visual.
- (5) Identification.
- (6) Documentation.

b. On Subassembly.

- (1) Operational/functional.
- (2) Dimensional.
- (3) Workmanship.
- (4) Visual.
- (5) Identification.
- (6) Documentation.
- (7) Special Processing.

c. On Detail Parts.

- (1) Dimensional.
- (2) Material.
- (3) Special Processing.
- (4) Identification.

(5) Documentation.

(6) Workmanship.

d. On Raw Materials.

(1) Chemical Composition.

(2) Physical Properties.

(3) Hardness.

(4) Dimensional.

(5) Special Processing.

(6) Identification.

(7) Documentation.

191. RECORDING AUDIT RESULTS. All product audit activity will be recorded on Form 8100-1 (reference appendix 1, figure 10, of this order).

192.-195. RESERVED.

CHAPTER 15. MANUFACTURER'S MAINTENANCE FACILITY (MMF) (14 CFR PART 145, SUBPARTS A AND D)

196. GENERAL. The procedures in this chapter provide guidance for the issuance of a repair station certificate with a limited rating to certain manufacturers under 14 CFR part 145, Repair Stations, subparts A, General, and D, Limited Ratings for Manufacturers, and for the FAA surveillance of these facilities.

a. Applicability. The FAA considers that the standards met by a manufacturer to obtain a production approval (PC, APIS, TSO, PMA) provide a level of safety equivalent to that achieved under the standards applicable to a repair station with a limited rating. Therefore, any manufacturer located in the United States and its possessions that qualifies under § 145.101(a) is entitled to a repair station certificate with a limited rating without further showing. The repair station may perform maintenance and preventive maintenance on any article manufactured by it, at any service facility or other location within the United States. The manufacturer is entitled to one certificate for each basis of qualification listed in § 145.101(a). A single certificate with multiple ratings may be issued, if acceptable to the applicant.

b. Application. A letter of application may be submitted by the applicant to obtain a repair station certificate for a Manufacturer's Maintenance Facility (MMF).

197. INITIAL CERTIFICATION.

a. Inspectors should review and become familiar with the following 14 CFR parts prior to MMF certification: part 43 and part 65, Certification: Airmen Other Than Flight Crew Members, subpart E, Repairmen; part 91, General Operating and Flight Rules, subpart C, Equipment, Instrument, and Certificate Requirements; part 121, Operating Requirements: Domestic, Flag, and Supplemental Operations, subpart L, Maintenance, Preventive Maintenance, and Alterations; part 125, Certification and Operations: Airplanes Having a Seating Capacity of 20 or More Passengers or a Maximum Payload Capacity of 6,000 Pounds or More; and Rules Governing Persons on Board Such Aircraft, subpart G, Maintenance; part 135, Operating Requirements: Commuter and On Demand Operations and Rules Governing Persons on Board Such Aircraft, subpart J, Maintenance, Preventive Maintenance, and Alterations; and part 145.

b. Prior to the issuance of the certificate, the inspector should counsel the applicant on the privileges of the certificate and the certification and utilization of repairmen. The inspector is also required to determine the limitation of the authorization for each facility. The holder of an MMF can maintain, approve for return to service, and perform preventive maintenance on products for which it is rated, if certificated mechanics or repairmen are directly in charge of maintenance and preventive maintenance. This is limited to products for which a production approval is held. For example, a holder of a PC for aircraft could perform inspections on engines and such other work as would normally be done under an aircraft PC on the engines (buildup, necessary adjustments, etc.). A certificated repair station under § 145.11 would be required for engine work beyond that normally done under an airframe PC and performance of inspections (annual, 100-hour, and progressive).

c. FAA Form 8000-4, Air Agency Certificate, should be issued in the name of the manufacturer as it appears on the FAA production approval.

(1) The certificate should be prepared as shown in appendix 1, figure 12, of this order.

(2) Enter the location under address, AS SPECIFIED BY THE APPLICANT. (This location is limited to the United States and its possessions.) If there are satellite MMF's, their locations will be listed on Form 8000-4 or on an addendum to the certificate.

(3) Obliterate the words "and any major change in the basic facilities or in the location thereof, shall be immediately reported to the appropriate directorate office of the FAA" from the form using black ink or marker.

(4) If the experience or conduct of a particular manufacturer makes it necessary for safety, restriction to a particular facility will be specified in a limitation on the repair station certificate issued for that facility. This is reflected in § 145.103(b).

(5) An alphanumeric number will be assigned by the local MIO/MIDO beginning with the three-letter designator for the directorate (i.e., ACE, ANE, ANM, or ASW). The next three numbers will represent the MIO/MIDO office (e.g., 180, 041, 042, etc.). The last three numbers will be assigned sequentially (e.g., 001, 002, 003, etc.). This unique number is to be entered on Form 8000-4 prior to issuance. MISO's requiring issuance of an MMF for their PAH's should request a number from their cognizant MIO/MIDO.

(6) The MIDO manager will sign Form 8000-4. Electronic signature is not permitted.

d. Ratings. Limited ratings are issued to eligible applicants for certification of an MMF. The rating issued shall be determined from the information furnished by the applicant in the letter of application. One or more of the following limited ratings is to appear on the face of Form 8000-4. Replace the word "aircraft" with "engine" or "propeller," as appropriate.

(1) **LIMITED AIRCRAFT.** AIRCRAFT MANUFACTURED BY THE HOLDER OF THE RATING UNDER PRODUCTION CERTIFICATE NO. XXX.

(2) **LIMITED AIRCRAFT.** AIRCRAFT MANUFACTURED BY THE HOLDER OF THE RATING UNDER A TYPE CERTIFICATE WITH AN APPROVED PRODUCTION INSPECTION SYSTEM.

(3) **LIMITED PARTS.** PARTS MANUFACTURED BY THE HOLDER OF THE RATING UNDER A FEDERAL AVIATION ADMINISTRATION PARTS MANUFACTURER APPROVAL LETTER.

(4) **LIMITED APPLIANCE.** APPLIANCES MANUFACTURED BY THE HOLDER OF THE RATING UNDER A FEDERAL AVIATION ADMINISTRATION TECHNICAL STANDARD ORDER LETTER OF AUTHORIZATION.

e. Limitations. Section 145.103(b) provides that the privileges granted an MMF may be limited to a specific location or facility. Past experience with or conduct of a particular manufacturer may make it necessary, for safety reasons, to restrict the repair privileges to a specific location or facility. When such a restriction is imposed, the restriction and justification should be provided to the Manager, Production and Airworthiness Division, AIR-200, because of the possible impact on national and international relations.

198. PERSONNEL.

a. Section 145.103(a) requires the holder of an MMF to have certificated mechanics or repairmen directly in charge of maintenance and preventive maintenance in order to exercise the privileges of the certificate. This may require larger organizations to have certificated mechanics or repairmen in several areas of the facility to be directly in charge of the maintenance.

b. Repairmen certification for MMF's is accomplished by the FSDO's (reference FAA Order 8300.10, Airworthiness Inspector's Handbook). The facility recommends the employees for repairmen certification and submits the application to the MIDO PI having surveillance responsibility of the MMF. Since the PI is most familiar with the MMF operations, the PI will:

(1) Review the application and make a recommendation concerning the applicant's ability to act as a repairman.

(2) Forward the application and recommendation to the FSDO.

c. The FSDO representative reviews the application and may interview the applicant regarding experience, training, and other aspects of the application. The FSDO representative makes the final approval/disapproval decision on the applicant. The certificate is then forwarded back to the MIDO PI, for presentation to the MMF.

199. RECORDS AND RELATED REPORTS.

a. The MMF records should be retained in accordance with the manufacturer's record retention schedule, described or referenced in the FAA-approved quality control manual for PC, § 21.125 for APIS, § 21.303(h) for PMA, and § 21.607(c) for TSO. The content, form, and disposition of maintenance, preventive maintenance, rebuilding, and alteration records are contained in detail in § 43.9. The content, form, and disposition of the records for inspections conducted under other 14 CFR parts are contained in detail in § 43.11.

b. The MIDO MMF records will be established and maintained in accordance with Order 8300.10.

200. SURVEILLANCE.

a. The MMF will be audited at the same time as the production facility, in accordance with chapter 13 of this order, as applicable for the production approval held (PC, APIS, TSO authorization,

PMA). The MMF will receive an ACSEP evaluation as appropriate, in accordance with Order 8100.7. The basis for issuance of the MMF is the production approval; therefore, the PAH's production system is appropriate in the MMF.

b. The following additional items must be audited in the MMF:

- (1) Determine that the work being performed does not exceed the MMF authorization.
- (2) Determine that the work is being accomplished in accordance with approved data and part 43 requirements.
- (3) Determine that the work accomplished is recorded in accordance with §§ 43.9 and/or 43.11.
- (4) Determine that the return-to-service requirements are being complied with.
- (5) Determine that certificated mechanics or repairmen are directly in charge of maintenance and preventive maintenance.

c. When the MMF has a satellite MMF located outside its geographical boundary, and the district office having CM responsibility has determined that surveillance of the satellite MMF is necessary, then the supplier hand-off procedures in paragraph 91 of this order will be used to obtain surveillance.

201. ENFORCEMENT. The manufacturer's FAA-approved production system is appropriate in the MMF. This would include, as applicable, inspection method sheets, drawings, specifications, test equipment/tool and gauge calibration, etc. Therefore, § 145.105, and part 43 when applicable, will be cited in the enforcement report when noncompliance conditions are detected in the MMF (reference Order 2150.3).

202. MMF PROCEDURE. Although not required by regulation, manufacturers have found it advantageous to describe the MMF operation in a procedure referenced or contained in its quality control manual. This procedure is for the convenience of the manufacturers' personnel and the use of the FAA inspector.

203.-210. RESERVED.

CHAPTER 16. EXTENSION OF A PRODUCTION APPROVAL WITHIN THE UNITED STATES

211. GENERAL.

a. Production Certificate, PMA, and TSO authorization holders can request the FAA to extend their production approval to an associate facility. The associate facility shall:

(1) Be located within the United States.

(2) Be owned and controlled by the original PAH that controls the design and quality of the product, part, or article, except for companies participating in joint-production and/or co-production business agreements.

(3) Use a quality control or inspection system that has been approved by the original PAH.

(4) For PMA and TSO authorization, produce the same part thereof and to the same extent as the original PAH.

b. Extending a production approval to an associate facility gives that facility the same privileges as the original PAH, unless the original PAH or the FAA withholds the specific privileges.

c. Certificate management responsibilities for the associate facility will be accomplished by the MIDO having responsibility of the geographic area in which the associate facility is located.

d. The approval of changes to the QC or FIS data used by the associate facility will remain with the DO having CM responsibility for the original PAH. If the original PAH has delegated responsibility to approve changes to the associate facility, the DO of the associate facility will approve the changes.

e. All correspondence intended for the original PAH shall be from or routed through the DO that has certificate management of the original PAH.

f. Close and continuous communication and coordination must be maintained between both DO's. Any problems or concerns relative to the associate facility shall be promptly communicated between both DO's.

g. When the associate facility produces the complete product or part and meets the applicable 14 CFR eligibility requirements for the type of production approval, it should be encouraged to obtain a separate production approval. The PAH would benefit from a separate approval because the FAA offices would not need to coordinate production approval extensions.

212. RESPONSIBILITIES OF THE PAH.

a. The original PAH can request an extension of its production approval to an associate facility. The extension application will be submitted to the original PAH's MIDO.

(1) The request shall contain the following information:

(a) The location of the associate facility.

(b) The type and extent of activities to be performed at the associate facility.

(c) Any special conditions of the request, such as the delegation or withholding of delegation of MRB authority or designee privileges.

(d) A point of contact at the associate facility.

(2) The original PAH shall:

(a) Implement its QC system or FIS at the associate facility or approve the QC system or FIS used by the associate facility.

(b) If the approval or acceptance of the changes is retained by the original PAH, the associate facility should be required to submit all proposed changes to the originally approved FIS or QC manual to the PAH for acceptance or approval.

b. The associate facility's communication with the FAA will be with the DO having geographical responsibility of the area in which the associate facility is located.

(1) The associate facility shall:

(a) Comply with the QC system or FIS of the original PAH or the QC system or FIS approved by the original PAH.

(b) If the approval of changes to the QC or FIS manual is retained by the original PAH, submit proposed changes to the original PAH for approval.

(c) If the approval of changes to the QC or FIS data is delegated to the associate facility, submit changes to its DO.

(2) If authorized by the original PAH, the associate facility can request from its DO the appointment of DMIR's and/or appointment as an ODAR, in accordance with the procedures of paragraph 25 of this order.

213. RESPONSIBILITIES OF THE DO.

a. The DO of the original PAH shall:

(1) Evaluate the request for extension and determine if:

(a) The location of the associate facility is adequately described.

(b) The PAH's QC system or FIS is adequate to control the design and quality of the products and parts thereof produced at the associate facility, or the original PAH has reviewed and approved the associate facility's QC system or FIS.

(c) The request states explicitly the type and extent of production to be accomplished at the associate facility.

(d) Any special conditions of the extension apply (i.e., delegation or nondelegations) of MRB authority.

(2) Submit a letter to the DO having geographic responsibility of the area in which the associate facility is located informing it of the request, and include with the letter a copy of the extension request and the evaluation results.

(3) Assure the original PAH provides the MIDO of the associate facility a copy of the QC or FIS data to be used if not available at the associate facility.

(4) Request the MIDO of the associate facility to perform an initial audit.

(5) Consistent with paragraph 211 of this order, and in coordination with the MIDO of the associate facility, establish the prearrangement for addressing the following:

(a) Changes to QC or FIS manual.

(b) Initial audit findings.

(c) Compliance and enforcement actions.

(d) Submittal of correspondence.

(6) Evaluate and approve changes to the QC or FIS manual, when the responsibility for approving changes has been retained by the original PAH.

(7) After satisfactory completion of the initial audit, if necessary, approve the request and notify the original PAH.

(8) Issue to the original PAH an amended PC or an amended PMA approval letter. For a TSO authorization holder, request that the ACO issue a revised TSO authorization. The amended production approval authorizations shall list the associate facility as a manufacturing location. A copy of the amended production approval authorization will be sent to the MIDO of the associate facility.

b. The DO having CM responsibility of the associate facility shall:

(1) Perform an initial audit (reference paragraph 213a(4) of this order) and report results to the DO of the original PAH.

(2) Perform CM responsibilities of the PC associate facility in accordance with chapter 2 of this order, as applicable.

(3) Perform CM and MIDO responsibilities of the PMA associate facility in accordance with chapter 5 of this order and Order 8110.42, chapter 11, as applicable.

(4) Perform CM responsibilities of the TSO authorization associate facility in accordance with chapter 6 of this order, as applicable.

(5) If responsibility for the approval of changes to the associate facility's QC system or FIS has been delegated to the associate facility by the original PAH, review and approve changes to the QC system or FIS.

(6) Submit a courtesy copy of all pertinent documents and data to the DO of the original PAH. Types of documents and data to be sent include, but are not limited to, audit findings, corrective actions, and compliance and enforcement actions.

(7) Submit all correspondence intended for the original PAH to its DO for issuance to the original PAH.

(8) Assist the DO of the original PAH in establishing the prearrangement discussed in paragraph 213a(5) of this order.

(9) Establish and maintain continuous communication and coordination with the DO of the original PAH.

APPENDIX 1. SAMPLE FAA DOCUMENTATION

FIGURE 1. SAMPLE FAA FORM 8110-12, APPLICATION FOR TYPE CERTIFICATE, PRODUCTION CERTIFICATE, OR SUPPLEMENTAL TYPE CERTIFICATE

No certificate may be issued unless a completed application form has been received (14 C.F.R.-21)

| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION | | FORM APPROVED O.M.B. No. 04-R0078 |
|--|--|--|
| APPLICATION FOR TYPE CERTIFICATE, PRODUCTION CERTIFICATE, OR SUPPLEMENTAL TYPE CERTIFICATE | | |
| 1. Name and address of applicant ABC Aircraft Company 4954 Airport Drive Detroit, Michigan | 2. Application made for - <input type="checkbox"/> Type Certificate <input checked="" type="checkbox"/> Production Certificate <input type="checkbox"/> Supplemental Type Certificate | 3. Product Involved <input checked="" type="checkbox"/> Aircraft <input type="checkbox"/> Engine <input type="checkbox"/> Propeller |
| 4. TYPE CERTIFICATE (Complete item 4a below) | | |
| a. Model designation(s) (All models listed are to be completely described in the required technical data, including drawings representing the design, material, specifications, construction, and performance of the aircraft, aircraft engine, propeller which is the subject of this application.) | | |
| 5. PRODUCTION CERTIFICATE (Complete items 5a-c below. Submit with this form, in manual form, one copy of quality control data or changes thereto covering new products, as required by applicable FAR.) | | |
| a. Factory address (if different from above) | b. Application is for - <input checked="" type="checkbox"/> New production certificate <input type="checkbox"/> Additions to production Certificate (Give P.C. No.) | P.C. No. |
| c. Applicant is holder of or a licensee under a Type Certificate or a Supplemental Type Certificate (Attach evidence of licensing agreement and give certificate number) → | | T.C./S.T.C. No. 1A26 |
| 6. SUPPLEMENTAL TYPE CERTIFICATE (Complete items 6a-d below) | | |
| a. Make and model designation of product to be modified | | |
| b. Description of modification | | |
| c. Will data be available for sale or release to other persons? <input type="checkbox"/> Yes <input type="checkbox"/> No | d. Will parts be manufactured for sale? (Ref. FAR 21.303) <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| 7. CERTIFICATION - I certify that the above statements are true. | | |
| Signature of certifying official John J. Smith | Title Director, Quality Assurance | Date May 10, 1999 |

FAA Form 8110-12 (3-80) SUPERSEDES PREVIOUS EDITION (REPRESENTATION)

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)

**FIGURE 2. SAMPLE PRODUCTION CERTIFICATION APPLICATION AND
ACKNOWLEDGEMENT**

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
TRANSPORT AIRPLANE DIRECTORATE
SEATTLE MANUFACTURING INSPECTION DISTRICT OFFICE
2500 EAST VALLEY ROAD, SUITE C-2
RENTON, WASHINGTON 98055-4056

June 10, 1999

ABC Aircraft Company
4954 Airport Drive
Renton, Washington 12345

Production Certification Application Acknowledgement

This will acknowledge receipt of your application dated May 30, 1999, for a Production Certificate. This office has been authorized to initiate a preliminary evaluation of your manufacturing operations, quality control system, and testing procedures. The quality control data, required by Title 14 Code of Federal Regulations, part 21, Certification Procedures for Products and Parts (part 21), section 21.143, and submitted with your application, were forwarded to this office for our utilization in determining compliance with applicable regulations.

Accordingly, your quality control system and manufacturing facilities (including any supplier facilities, as appropriate) will be evaluated by this office to determine compliance with part 21, subpart G. To preclude any misunderstandings, please notify your suppliers as soon as possible that they are subject to FAA evaluations. We will contact you in the near future to advise you of our evaluation schedule.

Subsequent to our preliminary evaluation, a Production Certification Board will be established to make a final determination as to eligibility for issuance of a Production Certificate. This will be accomplished as soon as practicable following our recommendations to the Manager, Manufacturing Inspection Office, Transport Airplane Directorate. You will be given adequate notice so that a date for convening the Production Certification Board at your principal facility can be mutually agreed upon.

Roger C. Moore
Manager, ANM-108S

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)

FIGURE 3. SAMPLE FAA FORM 8120-4, PRODUCTION CERTIFICATE

This form is a representation of the original form and is not to be construed as the original certificate.

NOT FOR OFFICIAL USE

The United States of America
Department of Transportation
Federal Aviation Administration

Production Certificate

Number 6CE

This certificate, issued to
ABC AIRCRAFT COMPANY
whose business address is
4954 AIRPORT DRIVE
KANSAS CITY, MISSOURI
and whose manufacturing facilities are located at
752 PRIMROSE LAKE
ST. LOUIS, MISSOURI

authorizes the production, at the facilities listed above, of reasonable duplicates of airplanes which are manufactured in conformity with authenticated data, including, drawings, for which Type Certificate was issued in the pertinent and currently effective Production Limitation Record were issued. The facilities, methods, and procedures of this manufacturer were demonstrated as being adequate for the production of such duplicates on date of 5 May, 1999.

Duration: *This certificate shall continue in effect indefinitely, provided, the manufacturer continuously complies with the requirements for original issuance of certificate, or until the certificate is canceled, suspended, or revoked.*

By direction of the Administrator

Date issued:
August 10, 1999

J.J. Jones . J. J. Jones
Manager, Manufacturing Inspection Office

This Certificate is not Transferable, AND ANY MAJOR CHANGE IN THE BASIC FACILITIES, OR IN THE LOCATION THEREOF, SHALL BE IMMEDIATELY REPORTED TO THE APPROPRIATE REGIONAL OFFICE OF THE FEDERAL AVIATION ADMINISTRATION

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years or both
FAA FORM 8120-4 (12-69) SUPERSEDES FAA FORM 333

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)

FIGURE 4. SAMPLE FAA FORM 8120-3, PRODUCTION LIMITATION RECORD

This form is a representation of the original form and is not to be construed as the original certificate.

NOT FOR OFFICIAL USE

| <p><i>The United States of America</i> <i>Department of Transportation</i> Federal Aviation Administration</p> <p><i>Production Limitation Record</i></p> <p><i>The holder of</i> <i>Production Certificate No. 6CE</i> <i>may receive the benefits incidental to the</i> <i>possession of such certificate with respect to</i></p> <p>AIRCRAFT (OR AIRCRAFT PROPELLERS, AIRCRAFT ENGINES, (S APPLICABLE))</p> <p><i>manufactured in accordance with the data forming the</i> <i>basis for the following Type Certificate(s) No.</i></p> <table><tr><th>Type Certificate</th><th>Model</th><th>Date Production Authorized</th></tr><tr><td>A 920CE</td><td>AB 2047R</td><td>August 10, 1978</td></tr><tr><td>A 9CE</td><td>BC 258D</td><td>August 10, 1978</td></tr><tr><td>STC 492CE</td><td>Drawing List HC-B2YK-6</td><td>August 10, 1978</td></tr></table> <p>(Note: Any number of columns may be used provided the material is neat and legible. Additional PLRs may be used when necessary. Additional PLRs shall be numbered "1 of 2," "2 of 2," as appropriate to the number of pages involved.)</p> <p>LIMITATIONS:</p> <p>(if any)</p> <table><tr><td><p>August 10, 1999</p><hr/><p><i>Date of issuance</i></p></td><td><p><i>By Direction of the Administrator</i> <i>J. J. Jones</i> J. J. Jones</p><hr/><p>Manager, Manufacturing Inspection District Office</p></td></tr></table> <p>FAA FORM 8120-3 (7-67)</p> | | | Type Certificate | Model | Date Production Authorized | A 920CE | AB 2047R | August 10, 1978 | A 9CE | BC 258D | August 10, 1978 | STC 492CE | Drawing List HC-B2YK-6 | August 10, 1978 | <p>August 10, 1999</p> <hr/> <p><i>Date of issuance</i></p> | <p><i>By Direction of the Administrator</i> <i>J. J. Jones</i> J. J. Jones</p> <hr/> <p>Manager, Manufacturing Inspection District Office</p> |
|--|--|----------------------------|------------------|-------|----------------------------|---------|----------|-----------------|-------|---------|-----------------|-----------|------------------------|-----------------|--|--|
| Type Certificate | Model | Date Production Authorized | | | | | | | | | | | | | | |
| A 920CE | AB 2047R | August 10, 1978 | | | | | | | | | | | | | | |
| A 9CE | BC 258D | August 10, 1978 | | | | | | | | | | | | | | |
| STC 492CE | Drawing List HC-B2YK-6 | August 10, 1978 | | | | | | | | | | | | | | |
| <p>August 10, 1999</p> <hr/> <p><i>Date of issuance</i></p> | <p><i>By Direction of the Administrator</i> <i>J. J. Jones</i> J. J. Jones</p> <hr/> <p>Manager, Manufacturing Inspection District Office</p> | | | | | | | | | | | | | | | |

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)**FIGURE 5. SAMPLE TRANSMITTAL OF PRODUCTION CERTIFICATE**

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
SMALL AIRPLANE DIRECTORATE
MANUFACTURING INSPECTION OFFICE
901 LOCUST STREET, ROOM 301
KANSAS CITY, MISSOURI 64106-2641

August 12, 1999

ABC Aircraft Company
4954 Airport Drive
Kansas City, Missouri 12345

Production Certificate Transmittal

We are pleased to forward Production Certificate No. 6CE, dated August 10, 1999, together with its Production Limitation Record listing Type Certificate No. 5A25. These documents must be prominently displayed in the main office of your factory, as required by Title 14 Code of Federal Regulations (14 CFR), part 21, Certification Procedures for Products and Parts (part 21), Section 21.161.

A Production Certificate authorizes the production of duplicates of specific type-certificated products and entitles the holder to certain privileges, including the option to obtain the appointment of a Designated Manufacturing Inspection Representative to issue airworthiness certificates and other related approvals. It should be noted that the issuance of a Production Certificate also places basic responsibilities upon the holder, as prescribed by Title 49 United States Code, Sections 44702(a) and 44704(b). The related rules are contained in part 21 and 14 CFR Part 45, Identification and Registration Marking. We suggest that copies of the aforementioned be made available to the appropriate personnel in your organization.

If at any time you have questions concerning your privileges or responsibilities relative to your Production Certificate, please contact either this office or our Manufacturing Inspection District Office (number and address).

James C. Grace
Manager, Manufacturing Inspection
Office, ACE-180

(NOTE: When the PC and PLR are delivered in person, this letter should be suitably revised to reflect such delivery.)

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)

FIGURE 6. SAMPLE QUALITY CONTROL/INSPECTION DATA APPROVAL

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
NEW ENGLAND REGION
ENGINE AND PROPELLER DIRECTORATE
MANUFACTURING INSPECTION DISTRICT OFFICE
CORPORATE AIR BUILDING 85-214
BRADLEY INTERNATIONAL AIRPORT
WINDSOR LOCKS, CT 06096

ABC Aircraft Company
4954 Airport Drive
Newington, Connecticut 12345

Quality Control/Inspection Data Approval

We have completed our review and evaluation of the changes to your Quality Control Manual dated May 24, 1999, and find they comply with the intent of Title 14 Code of Federal Regulations, part 21, Certification Procedures for Products and Parts. Your submitted data is approved as of this date, except that the Federal Aviation Administration reserves the right to require such changes, additions, or clarifications as may prove necessary, as a result of subsequent inspections and evaluations, to ensure continued compliance with appropriate regulations.

Duke E. Season
Manager, Manufacturing Inspection
District Office, NE-MIDO41

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)**FIGURE 7. SAMPLE LETTER OF AUTHORIZATION FOR EXTENSION OF
14 CFR § 21.123(c) SIX-MONTH LIMITATION**

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
SOUTHWEST REGION
ROTORCRAFT DIRECTORATE
MANUFACTURING INSPECTION OFFICE
2601 MEACHAM BOULEVARD
FORT WORTH, TEXAS 76137-4298

May 10, 1999

Johnson Aircraft Corporation
119 Standards Street
Benbrook, Texas 12345

Attention: Mr. Nelson P. Norman, Vice President

Authorization for Extension of Production Under Type Certificate Only, Title 14, Code of Federal Regulations (CFR), Part 21, Certification Procedures for Products and Parts (part 21), Section 21.123(c).

Your request, dated April 28, 1999, regarding the subject matter has been reviewed and authorization is hereby granted to extend the period of time products may be manufactured under a Type Certificate Only without an approved production inspection system from June 1, 1999, to October 1, 1999.

This extension of time is based on the fact that you were unable to establish an approved production inspection system within the six-month period as required by Section 21.123(c) due to the four-month labor strike at your facility which ended April 15, 1999. Aircraft produced under the provisions of this authorization will continue to require inspection by FAA personnel at various stages of fabrication, processing, and assembly where detailed inspections can be conducted.

Johnson Aircraft Corporation must also continue to comply with part 21, subpart F, as applicable, including the requirements for a FAA Form 8130-9, Statement of Conformity, with each application for an airworthiness certificate.

Jason P. Hope
Manager, Manufacturing
Inspection Office, ASW-180

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)

**FIGURE 8. SAMPLE LETTER FOR APPROVING A MANUFACTURER'S
PRODUCTION INSPECTION SYSTEM**

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
SOUTHWEST REGION
ROTORCRAFT DIRECTORATE
MANUFACTURING INSPECTION OFFICE
2601 MEACHAM BOULEVARD
FORT WORTH, TEXAS 76137-4298

November 4, 1999

GEM Aircraft Company
711 Suburban Lane
Oklahoma City, Oklahoma 73064

Production Inspection System Approval

Your production inspection system has been evaluated and found to be in compliance with applicable parts of Title 14 Code of Federal Regulations (14 CFR). Therefore, you are authorized to produce the following products and parts thereof in compliance with the standards contained in 14 CFR part 21, Certification Procedures for Products and Parts, Subpart F, and in conformity with the type design data forming the basis for the following type certificate(s):

| TYPE CERTIFICATE | MAKE | MODEL |
|-------------------------|-------------|--------------|
| 1A25GEM1010 1A78 | GEM | 1020 |

The following terms and conditions are applicable to this approval:

1. GEM Aircraft Company's production approval inspection system, methods, procedures, and manufacturing facilities, including its suppliers, are subject to FAA surveillance or investigations. Accordingly, GEM Aircraft Company must advise its suppliers that its facilities are also subject to FAA surveillance and investigation.
2. GEM Aircraft Company must make available to the FAA, upon request, any pertinent information concerning its suppliers who furnish parts/services, including:
 - a. A description of the part or service.
 - b. Where, and by whom, the part or service will undergo inspection.
 - c. Any delegation of inspection duties.

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)**FIGURE 8. SAMPLE LETTER FOR APPROVING A MANUFACTURER'S
PRODUCTION INSPECTION SYSTEM (CONT'D)**

- d. Any delegation of materials-review authority.
 - e. Name and title of FAA contact at the supplier facility.
 - f. The inspection procedures required to be implemented.
 - g. Any direct shipment authority.
 - h. Results of GEM Aircraft Company evaluation, audit, and/or surveillance of its suppliers.
 - i. The purchase/work order number (or equivalent).
 - j. Any feedback relative to service difficulties originating at GEM Aircraft Company suppliers.
3. Parts or services furnished by suppliers located in a foreign country or jurisdiction may not be used in the production of the products listed in this approval unless:
- a. That part or service can and will be completely inspected for conformity at GEM Aircraft Company's facility; or
 - b. The FAA has determined that the location of the foreign supplier facility places no undue burden on the FAA in administering applicable airworthiness requirements. When the use of such foreign suppliers is contemplated, GEM Aircraft Company must advise the FAA at least 10 days in advance to allow the FAA to make this determination; or
 - c. The parts/services furnished by the foreign supplier are produced under the "components" provision of U.S. airworthiness bilateral agreements, and approved for import to the U.S. in accordance with Section 21.502.
4. This approval is not transferable to another person or location. In addition, it may be withdrawn for any reason that would preclude its issuance or anytime the FAA finds that the approved production system is not being maintained. Also, the approval can be withdrawn if unsafe or nonconforming parts are accepted under the approved production inspection system; or if the Statement(s) of Conformity, FAA Form 8130-9, required by Section 21.130, is found to be invalid.
5. Our district office (address of cognizant office) must be notified within 10 days from the date that the address shown in this approval has been changed.
6. GEM Aircraft Company must maintain its approved production inspection system in continuous compliance with the requirements of Section 21.125, and ensure that each product/part thereof conforms with the type design data and is in a condition for safe operation.

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)

**FIGURE 8. SAMPLE LETTER FOR APPROVING A MANUFACTURER'S
PRODUCTION INSPECTION SYSTEM (CONT'D)**

7. GEM Aircraft Company is eligible for the appointment of qualified individuals in its employ to represent the FAA as Designated Manufacturing Inspection Representatives for the purpose of issuing Airworthiness Approvals for Class I, II, and III products.

8. GEM Aircraft Company shall report to our district office, in a timely manner, information concerning service difficulties on any product(s)/part(s) thereof produced under this approval, in addition to any failures, malfunctions, and defects required to be reported in accordance with Section 21.3.

9. All pertinent technical data for the product(s)/part(s) thereof to be produced under this approval must be readily available to the FAA at the facility in which the parts are being produced.

10. GEM Aircraft shall notify our district office immediately in writing of any changes to the APIS that may affect the inspection, conformity, or airworthiness of the product(s) approved in this letter.

* 11. GEM Aircraft Company shall produce all parts in accordance with GEM Aircraft Company Quality Control Manual, Revision G, dated July 17, 1996, which has been presented as evidence of compliance with Section 21.125. Accordingly, any revisions to these data must be submitted and approved by our district office prior to implementation.

Jack M. Safeway
Manager, Manufacturing
Inspection Office, ASW-180

***NOTE: Item 11 should only be prescribed when the applicant has voluntarily submitted inspection system data/procedures as evidence of compliance with Section 21.125.**

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)

FIGURE 9. SAMPLE FAA FORM 8120-2, PRODUCTION PROJECT CONTROL

RIS: FS 8120-3

| PRODUCTION PROJECT CONTROL | | 1. PROJECT NUMBER PA32NE-D | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|-----|-------|----|------------|-----|---------|-------|--------------|----|---------|-------|-------------|----|---------|-------|-------------|----|---------|-------|------------------|----|
| INSTRUCTIONS NEW, MODIFIED, CANCELED, AND REOPENED PROJECTS – Submit in triplicate to regional office. Complete items 2–14. Regional Office will complete items 1 and 15 if new project, and return one copy to district office and one copy to Aeronautical Quality Assurance Field Office. ANNUAL REPORT – Submit original and one copy to regional office by April 15 or when requested by regional office for preparing work program. Region to send copy to Aeronautical Quality Assurance Field Office. | | 2. TYPE OF ACTION | | | | | | | | | | | | | | | | | | | | | |
| | | NEW PROJECT | | | | | | | | | | | | | | | | | | | | | |
| | | INACTIVE PROJECT | | | | | | | | | | | | | | | | | | | | | |
| | | MODIFIED PROJECT | | | | | | | | | | | | | | | | | | | | | |
| | | CANCELED PROJECT | | | | | | | | | | | | | | | | | | | | | |
| | | REOPENED PROJECT | | | | | | | | | | | | | | | | | | | | | |
| | | <input checked="" type="checkbox"/> ANNUAL REPORT 3. DATE OF ACTION April 4, 198* | | | | | | | | | | | | | | | | | | | | | |
| 4. MANUFACTURER | | 5. PRODUCTION BASIS | | | | | | | | | | | | | | | | | | | | | |
| A. NAME Safe Aircraft Corporation | | TYPE CERTIFICATE ONLY | | | | | | | | | | | | | | | | | | | | | |
| | | <input checked="" type="checkbox"/> PRODUCTION CERTIFICATE NO. 115 P.M.A. SUPPLIER TSO MANUFACTURER APPROVED INSPECTION SYSTEM OTHER (Indicate type) | | | | | | | | | | | | | | | | | | | | | |
| B. MAILING ADDRESS (Number, street, city, state, and zip code) 2 Airport Drive Acton, MA 01720 | | 6. PRODUCT, ARTICLE, OR SERVICE Airplane | | | | | | | | | | | | | | | | | | | | | |
| C. LOCATION OF MANUFACTURING FACILITIES IF DIFFERENT FROM ITEM "B" ABOVE | | | | | | | | | | | | | | | | | | | | | | | |
| 7. ESTIMATED NUMBER OF PRODUCTION EMPLOYEES | | 1375 | | | | | | | | | | | | | | | | | | | | | |
| 8. ESTIMATED NUMBER OF COMPANY INSPECTORS | | 142 | | | | | | | | | | | | | | | | | | | | | |
| 9. NUMBER OF DESIGNATED MANUFACTURING INSPECTION REPRESENTATIVES | | 8 | | | | | | | | | | | | | | | | | | | | | |
| 10. MILES FROM MANUFACTURING INSPECTOR'S HEADQUARTERS | | 20 | | | | | | | | | | | | | | | | | | | | | |
| 11. FAA MAN-HOURS USED LAST FISCAL YEAR | | MANUFACTURING INSPECTION 2000 | | | | | | | | | | | | | | | | | | | | | |
| | | OTHER SEGMENTS 25 | | | | | | | | | | | | | | | | | | | | | |
| 12. ESTIMATED FAA MAN-HOURS REQUIRED NEXT FISCAL YEAR | | MANUFACTURING INSPECTION 2500 | | | | | | | | | | | | | | | | | | | | | |
| | | OTHER SEGMENTS 50 | | | | | | | | | | | | | | | | | | | | | |
| 13. REMARKS Model SAC 1000 is undergoing type certification and TC issuance is expected in March 198*. The scheduled production rate is 10 aircraft per month. Current production status: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Model</th> <th style="text-align: left;">TC</th> <th style="text-align: left;">Production</th> <th style="text-align: left;">FAR</th> </tr> </thead> <tbody> <tr> <td>SAC 900</td> <td>A42NE</td> <td>10 per month</td> <td>25</td> </tr> <tr> <td>SAC 800</td> <td>A32NE</td> <td>5 per month</td> <td>25</td> </tr> <tr> <td>SAC 700</td> <td>A22NE</td> <td>2 per month</td> <td>25</td> </tr> <tr> <td>SAC 600</td> <td>A12NE</td> <td>Spare parts only</td> <td>23</td> </tr> </tbody> </table> The manufacturer holds a Manufacturer's Maintenance Facility Certificate, No. MMF-140-2, with a limited aircraft rating. | | | | Model | TC | Production | FAR | SAC 900 | A42NE | 10 per month | 25 | SAC 800 | A32NE | 5 per month | 25 | SAC 700 | A22NE | 2 per month | 25 | SAC 600 | A12NE | Spare parts only | 23 |
| Model | TC | Production | FAR | | | | | | | | | | | | | | | | | | | | |
| SAC 900 | A42NE | 10 per month | 25 | | | | | | | | | | | | | | | | | | | | |
| SAC 800 | A32NE | 5 per month | 25 | | | | | | | | | | | | | | | | | | | | |
| SAC 700 | A22NE | 2 per month | 25 | | | | | | | | | | | | | | | | | | | | |
| SAC 600 | A12NE | Spare parts only | 23 | | | | | | | | | | | | | | | | | | | | |
| 14. SUBMITTED BY | | | | | | | | | | | | | | | | | | | | | | | |
| OFFICE IDENT. **MIDO** | TITLE Principal Manufacturing Inspector | SIGNATURE J. J. John <i>J.J. John</i> | | | | | | | | | | | | | | | | | | | | | |
| 15. REGIONAL OFFICE APPROVAL | | | | | | | | | | | | | | | | | | | | | | | |
| DATE | TITLE | SIGNATURE | | | | | | | | | | | | | | | | | | | | | |

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)

FIGURE 10. SAMPLE FAA FORM 8100-1, CONFORMITY INSPECTION RECORD (FRONT)

[illegible]

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)

FIGURE 10. SAMPLE FAA FORM 8100-1, CONFORMITY INSPECTION RECORD (BACK)

| INSTRUCTIONS | |
|--|--|
| 1. List the FAA assigned number along with date of TIA or Request for Conformity, as applicable. | |
| 2. Self-explanatory. | |
| 3. List the applicant or the manufacturer, or both. (The manufacturer may be the party producing or responsible for the product). | |
| 4. List the date the inspection began. | |
| 5. List the date the inspection ended. | |
| 6. If inspecting an aircraft, list the make, model, N-number, and serial number. For an engine or propeller, list the make, model, and serial number. | |
| 7. Aviation Safety Inspectors must type or print name, sign, and enter office identification. Designees must type or print name, sign, and list their designee identification number. | |
| 8. Assign consecutive numbers for each item inspected. | |
| 9. List the name or description of the part, appliance, assembly, drawing, document, specification, or name of the process being evaluated. | |
| 10. List the technical data that describes the item listed in Block 9. i.e., drawing number, document number, or name of the process specification number, etc. | |
| 11. List the revision level and date of the technical data described in Block 10. | |
| 12. List the number of items that were determined satisfactory or unsatisfactory. Do not record individual characteristics. NOTE: (an item is a single article or unit containing one or more dimensional characteristics or features). | |
| 13. Enter comments in this block that will support any information given in Blocks 8 through 12. i.e., unsatisfactory conditions, corrective actions taken, reference to other item numbers listed, serial numbers, type of inspection accomplished, destination of exported products, buyer finished equipment, parts processed through manufacturer's maintenance facility, part new or newly overhauled, condition of part or assembly, etc. | |
| 14. To be used for supplementing items 1-13. | |
| NOTE: Unsatisfactory conditions are corrected in one of two ways: | |
| Method 1: If action is presented to correct an unsatisfactory condition, the action is entered in Block 13 and the number in the UNSAT column of Block 12 is lined through and initialed. The number of items now determined satisfactory is entered in the SAT column next to the corrective action entry. | |
| Method 2: If corrective action is not presented, the inspector may continue the inspection by entering the next item inspected. When corrective action to the unsatisfactory condition is eventually presented, assign the item a new number and record the number in Block 8. Complete Blocks 9 and 10, enter a new revision and date if data has changed, and enter the number of items determined satisfactory in Block 12. Record both the corrective action taken and the item number of the unsatisfactory condition in Block 13. Place the item number in parenthesis. Next, line through and initial the number in the UNSAT column located next to Block 13 containing the unsatisfactory condition. Record the corrective action entry item number along with the unsatisfactory condition statement and place the number in parenthesis. | |
| 14. Continuation Block | |

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)

FIGURE 11. FORMS LISTING

The following forms are available from the FAA Logistics Center, AML-1000, through normal supply channels:

| Form Number | Title | NSN | Unit of Issue |
|------------------|--|------------------|---------------|
| FAA Form 8000-4 | Air Agency Certificate | 0052-00-027-1001 | Sheet |
| FAA Form 8100-1 | Conformity Inspection Record | 0052-00-039-3001 | Package |
| FAA Form 8110-12 | Application for Type Certificate, Production Certificate, or Supplemental Type Certificate | 0052-00-025-0001 | Sheet |
| FAA Form 8120-2 | Production Project Control | 0052-00-070-5001 | Sheet |
| FAA Form 8120-3 | Production Limitation Record | 0052-00-025-7001 | Sheet |
| FAA Form 8120-4 | Production Certificate | 0052-00-025-6001 | Package |
| FAA Form 8120-10 | Request For Conformity | 0052-00-899-3001 | Sheet |
| FAA Form 8130-3 | Airworthiness Approval/Conformity Certification Tag | 0052-00-012-9005 | Pad |

The following forms or equivalent are available in an electronic format within each directorate:

| Form Number | Title |
|-------------------------------|--|
| FAA Form 8100-6 | Record of Findings/Observations |
| FAA Form 8120-6 or Equivalent | Production Certification Projects Status Listing |
| FAA Form 8120-14 | Surveillance Activity Report |

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)

FIGURE 12. SAMPLE FAA FORM 8000-4, AIR AGENCY CERTIFICATE


This form is a representation of the original form and is not to be construed as the original certificate.

NOT FOR OFFICIAL USE

| | |
|---|--|
| UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION | |
| <h1 style="margin: 0;">Air Agency Certificate</h1> | |
| <i>Number</i> | ACE-180-001 |
| <i>This certificate is issued to</i> AJAX AIRCRAFT CORPORATION <i>whose business address is</i> REAGAN NATIONAL AIRPORT WASHINGTON, DC | |
| <i>upon finding that its organization complies in all respects with the requirements of the Federal Aviation Regulations relating to the establishment of an Air Agency, and is empowered to operate an approved</i> | |
| MANUFACTURER MAINTENANCE FACILITY | |
| <i>With the following ratings:</i> | |
| LIMITED AIRCRAFT. AIRCRAFT MANUFACTURED BY THE HOLDER OF THE RATING UNDER PRODUCTION CERTIFICATE NO. **3. | |
| <i>This certificate, unless canceled, suspended, or revoked, shall continue in effect</i> | |
| INDEFINITELY. | |
| By direction of the Administrator | |
| Date issued : | <u>JOHN L. SMITH John L. Smith</u> Manager, Manufacturing Inspection District Office |
| <u>September 8, 1999</u> | |
| This Certificate is not Transferable, AND ANY MAJOR CHANGE IN THE BASIC FACILITIES, OR IN THE LOCATION THEREOF, SHALL BE IMMEDIATELY REPORTED TO THE APPROPRIATE REGIONAL OFFICE OF THE FEDERAL AVIATION ADMINISTRATION. | |
| Any alteration of this certificate is punishable by a fine of not exceeding \$1,000 or imprisonment not exceeding 3 years, or both | |
| FAA Form 8000-4 (1-67) SUPERSEDES FAA FORM 390 | |

APPENDIX 1. SAMPLE FAA DOCUMENTATION (CONT'D)

FIGURE 13. SAMPLE FAA FORM 8120-10, REQUEST FOR CONFORMITY

| | |
|--|-------------------------------|
|  <small>US Department of Transportation Federal Aviation Administration</small> | REQUEST FOR CONFORMITY |
| <div style="display: flex; justify-content: space-between;"><div>Request for Conformity Inspection</div><div>Project No.: _____</div></div> | |
| <div style="display: flex; justify-content: space-between;"><div><input type="checkbox"/> Part Conformity _____ <input type="checkbox"/> Installation _____ <input type="checkbox"/> Other _____</div><div>Date: _____</div></div> | |
| A conformity inspection pertaining to the subject is requested for the following: | |
| Applicant Name: _____ | |
| Company Name: _____ | |
| Street: _____ | |
| City: _____ State: _____ Zip: _____ | |
| Time/Date Available: _____ <input type="checkbox"/> Applicant will Contact FAA | |
| Type Installation: _____ | |
| Make/Model: _____ Quantity: _____ | |
| Requesting Document (P.O.) and Date: _____ | |
| Design Data: (with Revision/Date): _____ | |
| _____ | |
| Special Instructions: _____ | |
| _____ | |
| Contact: _____ at: _____ (Phone Number) | |
| FAA Project Manager: _____ Phone: _____ | |
| Remarks: _____ | |
| _____ | |
| _____ | |
| <div style="display: flex; justify-content: space-between;"><div><input type="checkbox"/> T.I.A. Issued</div><div><input type="checkbox"/> FAA Form 8100-1 Required</div></div> | |
| <div style="display: flex; justify-content: space-between;"><div><input type="checkbox"/> T.I.R. Required</div><div><input type="checkbox"/> FAA Form 8130-9 Required</div></div> | |
| <input type="checkbox"/> 8130-3 Tags Required | |
| Note: Please return this request for conformity with the FAA conformity document to _____ | |
| _____ | |

FAA Form 8120-10 (7-85)

APPENDIX 2. PREPARATION INSTRUCTIONS FOR FAA FORM 8120-14

1. PURPOSE. This guidance provides instructions for completing Form 8120-14. This form is used to document surveillance activity at PAH's and their suppliers. When combined with the respective Form(s) 8100-6, a complete report of the surveillance activity conducted is available for subsequent surveillance planning.

2. SPECIFIC GUIDANCE. Figure 1 shows Form 8120-14 with numbered blocks. Prepare the form by inserting in:

a. Block 1. The name of the PAH as recorded on the production approval, or of the supplier as recorded on the PAH's documentation or in a CM MIDO memorandum requesting supplier surveillance.

b. Block 2. The project number(s) applicable to the production approval(s) and/or supplier activity.

c. Block 3. The address of the PAH as recorded on the production approval, or of the supplier as recorded on the PAH's documentation or in a CM MIDO memorandum requesting supplier surveillance.

d. Block 4. A check mark in the appropriate box(es) to indicate the type of production approval and/or the supplier activity.

e. Block 5. A check mark in the appropriate box to indicate the type of surveillance activity that was conducted.

f. Block 6. The starting date and the ending date of the surveillance activity.

g. Block 7. The title, revision number, and date of any quality manual submitted to the FAA by the PAH. The applicable CFR may also be entered. If no quality data is submitted, enter the applicable CFR. For a supplier, enter the applicable purchase order or quality requirements from the PAH, the applicable CFR, or both.

h. Block 8. The date that applicable quality data submitted by a PAH is approved by the FAA. If quality data is not subject to FAA approval, enter "N/A."

i. Block 9. An "X" in the column next to the system element evaluated when the result of the surveillance activity is satisfactory. If the system element is not applicable at a facility, enter "N/A." If the system element was not evaluated, enter "N/E."

j. Block 10. The respective Form 8100-6 finding and/or observation numbers for the system element evaluated, when the result of the surveillance activity is unsatisfactory.

k. Block 11. Enter the names, titles, and office symbols of all FAA personnel who participated in the surveillance activity. If the activity was an ACSEP evaluation, the ACSEP number may be entered in lieu of the evaluator information.

APPENDIX 2. PREPARATION INSTRUCTIONS FOR FAA FORM 8120-14 (CONT'D)


l. Block 12. The typed or printed name and signature of the person completing this form. In most cases, this will be the PI responsible for the PAH or supplier evaluated.

m. Block 13. The office symbol of the district or satellite office.

n. Block 14. The date that this form is completed.

APPENDIX 2. PREPARATION INSTRUCTIONS FOR FAA FORM 8120-14 (CONT'D)**FIGURE 1. SAMPLE FAA FORM 8120-14**

This form is a representation of the original form and not to be construed as the original form.

| | | | | | |
|---|--|---|-------------------------------------|--|--|
|  U.S. Department of Transportation Federal Aviation Administration | | | Surveillance Activity Report | | |
| Manufacturer: (1) RC Couplings | | | Project No.: (2) PQ1234NE | | |
| Address: (3) 10001 Admiral Square, Haverhill MA 01830 | | | | | |
| Production Basis: (4) PC <input type="checkbox"/> APIS <input type="checkbox"/> TSO authorization <input type="checkbox"/> PMA <input checked="" type="checkbox"/> Supplier <input type="checkbox"/> | | | | | |
| Surveillance Activity: (5) PI Audit <input checked="" type="checkbox"/> DO Audit <input type="checkbox"/> ACSEP Evaluation <input type="checkbox"/> Other <input type="checkbox"/> | | | | | |
| Surveillance Dates: From 4/6/99 To 4/9/99 (6) | | | | | |
| Quality Data – Title, Revision, Date, and/or CFR Section Involved: (7) RC Quality Manual, Rev. C, 1/12/97 | | | | | |
| Date of FAA Approval of Quality Data: N/A (8) | | | | | |
| SYSTEM ELEMENTS EVALUATED | | | | | |
| SYSTEM ELEMENT | | SATISFACTORY "X" if applicable (9) | | UNSATISFACTORY List FAA Form 8100-6 Finding/Observation No.(s) (10) | |
| 1. Organization & Responsibility | | | | | |
| 2. Design Data Control | | | | | |
| 3. Software Quality Assurance | | | | | |
| 4. Manufacturing Processes | | X | | | |
| 5. Special Manufacturing Processes | | | | Findings #1 and 2 | |
| 6. Statistical Quality Control | | | | | |
| 7. Tool & Gauge | | | | Observation #1 | |
| 8. Testing | | | | | |
| 9. Nondestructive Inspection | | | | | |
| 10. Supplier Control | | | | | |
| 11. Nonconforming Material | | | | | |
| 12. Material Handling/Storage | | | | | |
| 13. Airworthiness Determination | | | | | |
| 14. FAA Reporting Requirements | | | | | |
| 15. Internal Audit | | | | | |
| 16. Global Production | | | | | |
| 17. Manufacturer's Maintenance Facility | | | | | |
| PARTICIPATING EVALUATORS (11) | | | | | |
| NAME | | TITLE | | OFFICE SYMBOL | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Typed/Printed Name and Signature of Cognizant PI: (12) Julia R. Gotta <i>Julia R. Gotta</i> | | Office Symbol (13) ANE MISO 42 | | Date (14) 4/12/99 | |
| FAA Form 8120-14 (9-99) | | | | | |
| FOR OFFICIAL USE ONLY (when filled in) Public availability to be determined under 5 U.S.C. 552 | | | | | |

**APPENDIX 3. PREPARATION INSTRUCTIONS FOR FAA FORM 8100-6,
RECORD OF FINDINGS/OBSERVATIONS**

1. PURPOSE. This guidance provides instructions for completing Form 8100-6 for all surveillance activities.

2. SPECIFIC GUIDANCE. Figure 3 shows Form 8100-6 with numbered blocks. The form shall be prepared as a stand-alone document. Prepare the form by inserting in:

- a. Block 1.** A check mark in the appropriate box to indicate the type of surveillance activity that was conducted.
- b. Block 2.** When the surveillance activity is an ACSEP evaluation, enter the ACSEP Number/Report Number. For PI or DO audits, enter "N/A."
- c. Block 3.** The project number(s) applicable to the production approval(s) and/or supplier activity.
- d. Block 4.**

(1) ACSEP Evaluation. Under "System Element Evaluated," enter "N/A." Under "Evaluation Criteria Number," enter the evaluation criteria number from Order 8100.7, appendix 14 or 15. For new criteria, insert the system element number assigned by Order 8100.7, paragraph 2d(2) of appendix 17 or 18. Do NOT insert more than one number.

NOTE: More than one finding and/or observation may be recorded for an evaluation criteria number. When an evaluation criteria contains several statements of condition, it is possible to find noncompliances or nonobservances to some or all of those conditions. When multiple statements of conditions under one criteria are affected, a Form 8100-6 should be completed for each condition. When findings or observations are recorded for a common condition, only one Form 8100-6 should be completed.

(2) PI or DO Audit. Under "System Element Evaluated," enter the name of the system element in Order 8100.7 to which the finding or observation is relevant. Under "Evaluation Criteria Number," enter the applicable evaluation criteria number from Order 8100.7 when a finding or observation is found at a priority part supplier. Enter "N/A" when a finding or observation is found at a PAH.

e. Block 5. The reference controlling document. The controlling document is defined as the FAA-approved data, purchase order/quality requirements from a PAH or associate facility, or other facility procedures used in producing the product. Enter the complete reference number, or, as a minimum, the document title and effective date. (Examples: ABC Company Quality Manual dated March 5, 1976; XYZ QOI 32-6 dated June 23, 1990; BCD Drawing No. 9825333-2 dated May 20, 1989.) Insert a check in the "Yes" or "No" block, as appropriate, to indicate whether the controlling document is FAA-approved.

APPENDIX 3. PREPARATION INSTRUCTIONS FOR FAA FORM 8100-6, RECORD OF FINDINGS/OBSERVATIONS (CONT'D)

NOTE: An APIS or PMA holder's quality manual submitted to the FAA as evidence of compliance to part 21 is not considered to be FAA-approved data. The "NO" block should always be checked for these documents. See paragraph 50 of this order. Purchase orders and/or quality requirements flowed down to a supplier by a PAH or associate facility are generally not considered to be FAA-approved data. In some cases, quality requirements for use at a supplier facility are specifically approved by the FAA prior to use. Determine the approval status of any referenced PAH supplier quality requirement before checking the "YES" or "NO" block.

f. Block 6. The applicable CFR part or section that establishes the responsibility of the PAH (i.e., § 21.165 or § 21.607). For an APIS or PMA facility, insert the specific paragraph reference from §§ 21.125(a)(1) through (a)(10) or § 21.303(h)(1) through (h)(9), or other applicable CFR (e.g., § 45.15) that the observed condition is traceable. For ACSEP evaluations only, insert the applicable CFR part or section that establishes the responsibility of any delegated facility evaluated (i.e., § 21.245, § 21.445, or SFAR NO. 36, § 6(a)(2)). Insert the applicable CFR reference for each approval type affected.

g. Block 7. A check in either the "System" or "Safety" box based on the criteria in figure 1 below. Number findings sequentially beginning with the number "1."

FIGURE 1. BLOCK 7 ENTRIES (FINDING)

| Type of Facility Surveilled | Applicable Block 7 Check Box | Criteria for a Finding | Applicable Flowchart |
|--|------------------------------|---|--|
| PC Holder OR TSO Authorization Holder OR Associate Facility of a PC or TSO Authorization Holder OR Delegated Facility | System | (1) There is a noncompliance with an applicable CFR part or section (e.g., § 21.165, § 21.245, § 21.607), OR (2) There is a noncompliance with FAA-approved data (e.g., quality manual, FAA-approved data), AND (3) There is an indication of a system deficiency or breakdown substantiated by objective evidence. | PI/DO audit: Appendix 4, Figure 1 <u>ACSEP:</u> Order 8100.7, Appendix 13, Figure 1 |
| | Safety | There is a safety-related noncompliance that the responsible PI determines requires immediate action. This would include any noncompliance with § 21.3. | PI/DO audit: Appendix 4, Figure 1 <u>ACSEP:</u> Order 8100.7, Appendix 13, Figure 1 |

**APPENDIX 3. PREPARATION INSTRUCTIONS FOR
FAA FORM 8100-6, RECORD OF FINDINGS/OBSERVATIONS (CONT'D)**

FIGURE 1. BLOCK 7 ENTRIES (FINDING) (CONT'D)

| Type of Facility Surveilled | Applicable Block 7 Check Box | Criteria for a Finding | Applicable Flowchart |
|--|-------------------------------------|--|---|
| APIS Holder OR PMA Holder OR Associate Facility of an APIS or PMA Holder | System | (1) There is a noncompliance with FAA-approved design data, OR (2) There is a noncompliance that is directly traceable to one of the requirements of § 21.125(a)(1) through (a)(10) [APIS] or § 21.303(h)(1) through (h)(9) [PMA], OR (3) There is a noncompliance with another applicable CFR part or section (e.g., § 45.15), AND (4) There is an indication of a system deficiency or breakdown substantiated by objective evidence. | <u>PI/DO audit:</u> Appendix 4, Figure 3 <u>ACSEP:</u> Order 8100.7, Appendix 13, Figure 2 |
| | Safety | There is a safety-related noncompliance that the responsible PI determines requires immediate action. This would include any noncompliance with § 21.3. | <u>PI/DO audit:</u> Appendix 4, Figure 3 <u>ACSEP:</u> Order 8100.7, Appendix 13, Figure 2 |
| Supplier to a PC or TSO Authorization Holder OR Supplier to an Associate Facility of a PC or TSO Authorization Holder | System | (1) There is a noncompliance with purchase order or quality requirements from a PC or TSO authorization holder, or an associate facility to a PC or TSO authorization holder, AND (2) There is an indication of a system deficiency or breakdown substantiated by objective evidence. | <u>PI/DO audit:</u> Appendix 4, Figure 2 <u>ACSEP:</u> N/A |
| | Safety | There is a safety-related noncompliance that the responsible PI determines requires immediate action. This would include any noncompliance with § 21.3. | <u>PI/DO audit:</u> Appendix 4, Figure 2 <u>ACSEP:</u> N/A |

**APPENDIX 3. PREPARATION INSTRUCTIONS FOR
FAA FORM 8100-6, RECORD OF FINDINGS/OBSERVATIONS (CONT'D)**

FIGURE 1. BLOCK 7 ENTRIES (FINDING) (CONT'D)

| Type of Facility Surveilled | Applicable Block 7 Check Box | Criteria for a Finding | Applicable Flowchart |
|--|-------------------------------------|---|--|
| Supplier to an APIS or PMA Holder OR Supplier to an Associate Facility of an APIS or PMA Holder | System | (1) There is a noncompliance with purchase order or quality requirements from an APIS or PMA holder, or associate facility to an APIS or PMA holder, that is directly traceable to one of the requirements of § 21.125(a)(1) through (a)(10) [APIS] or § 21.303(h)(1) through (h)(9) [PMA], OR (2) There is a noncompliance with purchase order or quality requirements from an APIS or PMA holder, or associate facility to an APIS or PMA holder, that is directly traceable to another applicable CFR part or section (e.g., § 45.15), AND (3) There is an indication of a system deficiency or breakdown substantiated by objective evidence. | PI/DO audit: Appendix 4, Figure 4 <u>ACSEP</u> : N/A |
| | Safety | There is a safety-related noncompliance that the responsible PI determines requires immediate action. This would include any noncompliance with § 21.3. | PI/DO audit: Appendix 4, Figure 4 <u>ACSEP</u> : N/A |
| Satellite MMF | System | (1) There is a noncompliance with an applicable CFR part or section (e.g., § 145.105, part 43), AND (2) There is an indication of a system deficiency or breakdown substantiated by objective evidence. | PI/DO audit: Appendix 4, Figure 5 <u>ACSEP</u> : Order 8100.7, Appendix 13, Figure 3 |
| | Safety | There is a safety-related noncompliance that the responsible PI determines requires immediate action. This would include any noncompliance with § 21.3. | PI/DO audit: Appendix 4, Figure 5 <u>ACSEP</u> : Order 8100.7, Appendix 13, Figure 3 |

**APPENDIX 3. PREPARATION INSTRUCTIONS FOR
FAA FORM 8100-6, RECORD OF FINDINGS/OBSERVATIONS (CONT'D)**

h. Block 8. A check in either the "System," "Isolated," or "CFR" box based on the criteria in figure 2 below. Number findings sequentially beginning with the number "1."

FIGURE 2. BLOCK 8 ENTRIES (OBSERVATION)

| Type of Facility Surveilled | Applicable Block 8 Check Box | Criteria for an Observation | Applicable Flowchart |
|--|-------------------------------------|--|---|
| PC Holder OR TSO Authorization Holder OR Associate Facility of a PC or TSO Authorization Holder OR Delegated Facility | System | (1) There is a non-observance to procedures (related to the PC, TSO, or delegated facility authorization approval) that are not part of the FAA-approved data, AND (2) There is an indication of a system deficiency or breakdown substantiated by objective evidence. | <u>PI/DO audit:</u> N/A <u>ACSEP:</u> Order 8100.7, Appendix 13, Figure 1 |
| | Isolated | (1) There is a noncompliance with an applicable CFR part or section (e.g., § 21.165, § 21.245, § 21.607), OR (2) There is a noncompliance with FAA-approved data (e.g., quality manual or procedures manual/handbook), AND (3) There is no indication of a system deficiency or breakdown. | <u>PI/DO audit:</u> Appendix 4, Figure 1 <u>ACSEP:</u> Order 8100.7, Appendix 13, Figure 1 |
| | CFR | FAA-approved data is found to be in noncompliance with an applicable CFR part or section. | <u>PI/DO audit:</u> Appendix 4, Figure 1 <u>ACSEP:</u> Order 8100.7, Appendix 13, Figure 1 |

**APPENDIX 3. PREPARATION INSTRUCTIONS FOR
FAA FORM 8100-6, RECORD OF FINDINGS/OBSERVATIONS (CONT'D)**

FIGURE 2. BLOCK 8 ENTRIES (OBSERVATION) (CONT'D)

| Type of Facility Surveilled | Applicable Block 8 Check Box | Criteria for an Observation | Applicable Flowchart |
|--|------------------------------|--|---|
| APIS Holder OR PMA Holder OR Associate Facility of an APIS or PMA Holder | System | (1) There is a non-observance to procedures that are not part of the FAA-approved design data, OR (2) There is a non-observance to procedures that are not directly traceable to one of the requirements of § 21.125(a)(1) through (a)(10) [APIS] or § 21.303(h)(1) through (h)(9) [PMA], OR (3) There is a non-observance to procedures that are not directly traceable to other applicable CFR parts or sections (e.g., § 45.15), AND (4) There is an indication of a system deficiency or breakdown substantiated by objective evidence. | <u>PI/DO audit:</u> N/A <u>ACSEP:</u> Order 8100.7, Appendix 13, Figure 2 |
| | Isolated | (1) There is a noncompliance with FAA-approved design data, OR (2) There is a noncompliance that is directly traceable to one of the requirements of § 21.125(a)(1) through (a)(10) [APIS] or § 21.303(h)(1) through (h)(9) [PMA], OR (3) There is a noncompliance with another applicable CFR part or section (e.g., § 45.15), AND (4) There is no indication of a system deficiency or breakdown. | <u>PI/DO audit:</u> Appendix 4, Figure 3 <u>ACSEP:</u> Order 8100.7, Appendix 13, Figure 2 |

**APPENDIX 3. PREPARATION INSTRUCTIONS FOR
FAA FORM 8100-6, RECORD OF FINDINGS/OBSERVATIONS (CONT'D)**

FIGURE 2. BLOCK 8 ENTRIES (OBSERVATION) (CONT'D)

| Type of Facility Surveilled | Applicable Block 8 Check Box | Criteria for an Observation | Applicable Flowchart |
|---|-------------------------------------|--|--|
| APIS Holder OR PMA Holder OR Associate Facility of an APIS or PMA Holder (continued) | CFR | A quality manual submitted to the FAA as evidence of compliance to part 21 or part 145 is found to contain data that will not provide compliance with § 21.125(a)(1) through (a)(10) [APIS], § 21.303(h)(1) through (h)(9) [PMA], § 145.105 [MMF], or with another applicable CFR part or section (e.g., § 45.15). | <u>PI/DO audit:</u> Appendix 4, Figure 3 <u>ACSEP:</u> Order 8100.7, Appendix 13, Figure 2 |
| Satellite MMF | System | (1) There is a non-observance to procedures that are not directly traceable to one of the requirements of § 145.105 or part 43, AND (2) There is an indication of a system deficiency or breakdown substantiated by objective evidence. | <u>PI/DO audit:</u> N/A <u>ACSEP:</u> Order 8100.7, Appendix 13, Figure 3 |
| | Isolated | (1) There is a noncompliance with an applicable CFR part or section (e.g., § 145.105, part 43), AND (2) There is no indication of a system deficiency or breakdown. | <u>PI/DO audit:</u> Appendix 4, Figure 5 <u>ACSEP:</u> Order 8100.7, Appendix 13, Figure 3. |
| | CFR | <u>Satellite MMF of a PC or TSO Authorization Holder MMF.</u> FAA-approved data is found to be in noncompliance with an applicable CFR part or section. | <u>PI/DO audit:</u> Appendix 4, Figure 5 <u>ACSEP:</u> Order 8100.7, Appendix 13, Figure 3 |

**APPENDIX 3. PREPARATION INSTRUCTIONS FOR
FAA FORM 8100-6, RECORD OF FINDINGS/OBSERVATIONS (CONT'D)**

FIGURE 2. BLOCK 8 ENTRIES (OBSERVATION) (CONT'D)

| Type of Facility Surveilled | Applicable Block 8 Check Box | Criteria for an Observation | Applicable Flowchart |
|---|-------------------------------------|--|---|
| Satellite MMF (continued) | CFR | <u>Satellite MMF of an APIS or PMA Holder MMF.</u> A quality manual submitted to the FAA as evidence of compliance to part 21 or part 145 is found to contain data that will not provide compliance with § 21.125(a)(1) through (a)(10) [APIS], § 21.303(h)(1) through (h)(9) [PMA], § 145.105 [MMF], or with another applicable CFR part or section (e.g., § 45.15). | <u>PI/DO audit:</u> Appendix 4, Figure 5 <u>ACSEP:</u> Order 8100.7, Appendix 13, Figure 3 |
| Supplier to a PC or TSO Authorization Holder OR Supplier to an Associate Facility of a PC or TSO Authorization Holder. | System | N/A | N/A |
| | Isolated | (1) There is a noncompliance with purchase order or quality requirements from a PC or TSO authorization holder, or associate facility to a PC or TSO authorization holder, AND (2) There is no indication of a system deficiency or breakdown. | <u>PI/DO audit:</u> Appendix 4, Figure 2 <u>ACSEP:</u> N/A |
| | CFR | Purchase order or quality requirements developed by a PC or TSO authorization holder, or an associate facility of a PC or TSO authorization holder, for use at a supplier are FAA-approved and are found to be in noncompliance with an applicable CFR part or section. | <u>PI/ DO audit:</u> Appendix 4, Figure 2 <u>ACSEP:</u> N/A |

**APPENDIX 3. PREPARATION INSTRUCTIONS FOR
FAA FORM 8100-6, RECORD OF FINDINGS/OBSERVATIONS (CONT'D)**

FIGURE 2. BLOCK 8 ENTRIES (OBSERVATION) (CONT'D)

| Type of Facility Surveilled | Applicable Block 8 Check Box | Criteria for an Observation | Applicable Flowchart |
|--|-------------------------------------|--|---|
| Supplier to an APIS or PMA Holder OR Supplier to an Associate Facility of an APIS or PMA Holder | System | N/A | N/A |
| | Isolated | (1) There is a noncompliance with purchase order or quality requirements from an APIS or PMA holder, or associate facility to an APIS or PMA holder, that is directly traceable to one of the requirements of § 21.125(a)(1) through (a)(10) [APIS], or § 21.303(h)(1) through (h)(9) [PMA], OR (2) There is a noncompliance with purchase order or quality requirements from an APIS or PMA holder, or associate facility to an APIS or PMA holder, that is directly traceable to another applicable CFR part or section (e.g., § 45.15), AND (3) There is no indication of a system deficiency or breakdown. | PI/DO audit: Appendix 4, Figure 4 ACSEP: N/A |
| | CFR | N/A | N/A |

i. Block 9. The condition required by the controlling document, applicable supporting documents, or the applicable CFR part or section. Use the same wording as the controlling document, the applicable supporting document, or the applicable CFR part or section, whenever possible. List all documents that demonstrate the link back to the controlling document or applicable CFR. Do not attach copies of CFR references.

**APPENDIX 3. PREPARATION INSTRUCTIONS FOR
FAA FORM 8100-6, RECORD OF FINDINGS/OBSERVATIONS (CONT'D)**

j. Block 10. A detailed explanation of the encountered condition.

(1) Explain why the encountered condition differs from the required condition.

(2) Identify where the encountered condition was found.

(3) Identify the total number of items checked and the total number of items found to be in noncompliance or nonobservance.

(4) List the items found to be in noncompliance or nonobservance, using identification numbers or other specific identifiers whenever possible.

(5) Record any evidence the facility provided during the evaluation to show that corrective action was taken or initiated.

(6) When the encountered condition finds FAA-approved data to be in noncompliance with an applicable CFR part or section, include a note that further investigation by the ACO, MIO, or MIDO may be required.

(7) List all attachments obtained that describe the encountered condition.

k. Block 11. A check in the box to indicate that the encountered condition has been discussed with the facility escort, as a minimum.

l. Block 12. The evaluator's typed or printed name and signature.

NOTE: Evaluators-in-training and support service personnel participating in ACSEP evaluations may sign this block. However, the block must be countersigned by an appointed ACSEP evaluator.

m. Block 13. The routing office symbol of the evaluator.

n. Block 14. The date the form is completed.

APPENDIX 3. PREPARATION INSTRUCTIONS FOR FAA FORM 8100-6, RECORD OF FINDINGS/OBSERVATIONS (CONT'D)

FIGURE 3. SAMPLE FAA FORM 8100-6

This form is a representation of the original form and not to be construed as the original form.

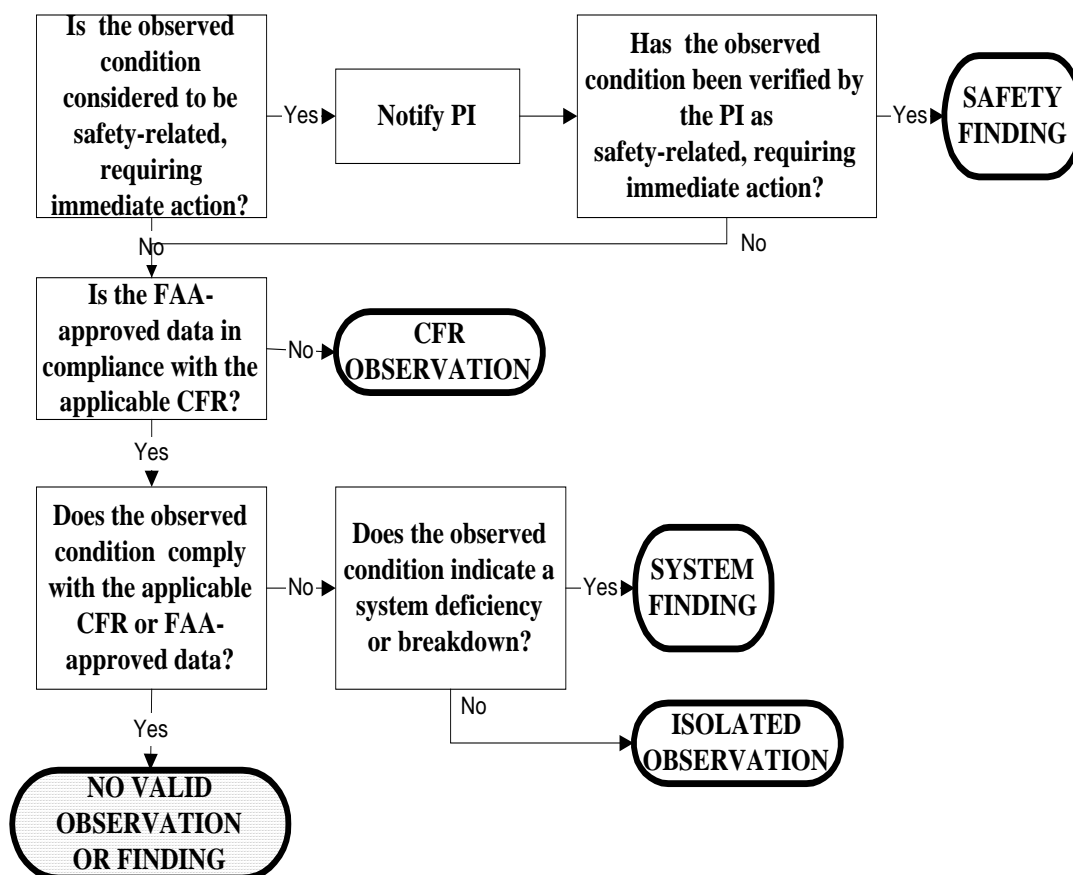
| | | | | |
|--|--|---|---|---------------------------------------|
| | | Record of Findings/Observations | | ACSEP No./ Report No. (2) |
| | | | | N/A |
| U.S. Department of Transportation Federal Aviation Administration | | Type of Surveillance Activity: (1) | | Project No. (3) |
| | | PI Audit <input type="checkbox"/> DO Audit <input type="checkbox"/> ACSEP | | PS099NE |
| System Element Evaluated: Supplier Control (4) Evaluation Criteria Number: N/A | | Controlling Document: (5) RC Purchase Order #94 of 11/23/97 | | Applicable CFR Section: (6) 21.607 |
| | | FAA-approved data? <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| FINDING (7) | System <input type="checkbox"/> Safety No. 1 | OBSERVATION (8) | System <input type="checkbox"/> Isolated <input type="checkbox"/> CFR No. | |
| Required Condition: (9) <p>RC Purchase Order (PO) #94 for rotor support couplings states: "J&J Machining Co. shall comply with RC Quality Manual, Section 4, and purchase raw materials exclusively from YOYO International Material Broker. Terms of purchase will include a request for a metallurgical lab report with each shipment. These reports will be retained by J&J Machining Co. for a minimum of 2 years."</p> <p>J&J Machining Co. Quality Manual, paragraph 12.4(c), states: "All raw material purchase orders shall include a statement requiring suppliers to furnish a metallurgical lab report with each shipment. The reports will be retained by J&J Machining Co. metallurgical lab in accordance with paragraph 23.6."</p> | | | | |
| Encountered Condition: (10) <div style="float: right;">(11) <input type="checkbox"/> Discussed with Facility</div> <p>Ten J&J Machining Co. purchase orders for raw materials to be used for the manufacture of rotor support couplings under RC PO #94 were reviewed (J3-122; J3-114; J3-221; J3-98; J3-301; J3-110; J3-245; J3-15; J3-278; J3-184). All ten POs were issued to YOYO International Material Broker as required by RC PO #94, and all included the statement for furnishing a metallurgical lab report with each shipment. All raw material shipments were completed between January 1997 and March 1998. The J&J Machining Co. metallurgical lab files were reviewed to determine whether metallurgical lab reports had been furnished with each shipment required by the ten POs. Only one metallurgical lab report was found to be on file (shipment under PO #J3-122).</p> <p>Attachments:</p> <p>RC Purchase Order #94</p> <p>RC Quality Manual, Section 4</p> <p>J&J Machining Co. Quality Manual, paragraphs 12.4(c) and 23.6</p> <p>J&J Machining Co. PO # J3-122; J3-114; J3-221; J3-98; J3-301; J3-110; J3-245; J3-15; J3-278; J3-184</p> | | | | |
| Typed Name and Signature of Evaluator: (12) Julia R. Gotta <i>Julia R. Gotta</i> | | Office Symbol (13) ANE MIDO 42 | Date (14) 5/1/99 | |
| FAA Form 8100-6 (9-99) FOR OFFICIAL USE ONLY (when filled in) Public availability to be determined under 5 U.S.C. 552 | | | | |

APPENDIX 4. PROCESS FOR IDENTIFYING FINDINGS AND OBSERVATIONS DURING A PI OR DO AUDIT

1. PURPOSE. This appendix provides several figures to assist the evaluator in identifying findings and observations during a PI or DO audit. It supplements the description provided in chapter 13 of this order. Figures for use during an ACSEP evaluation are located in Order 8100.7.

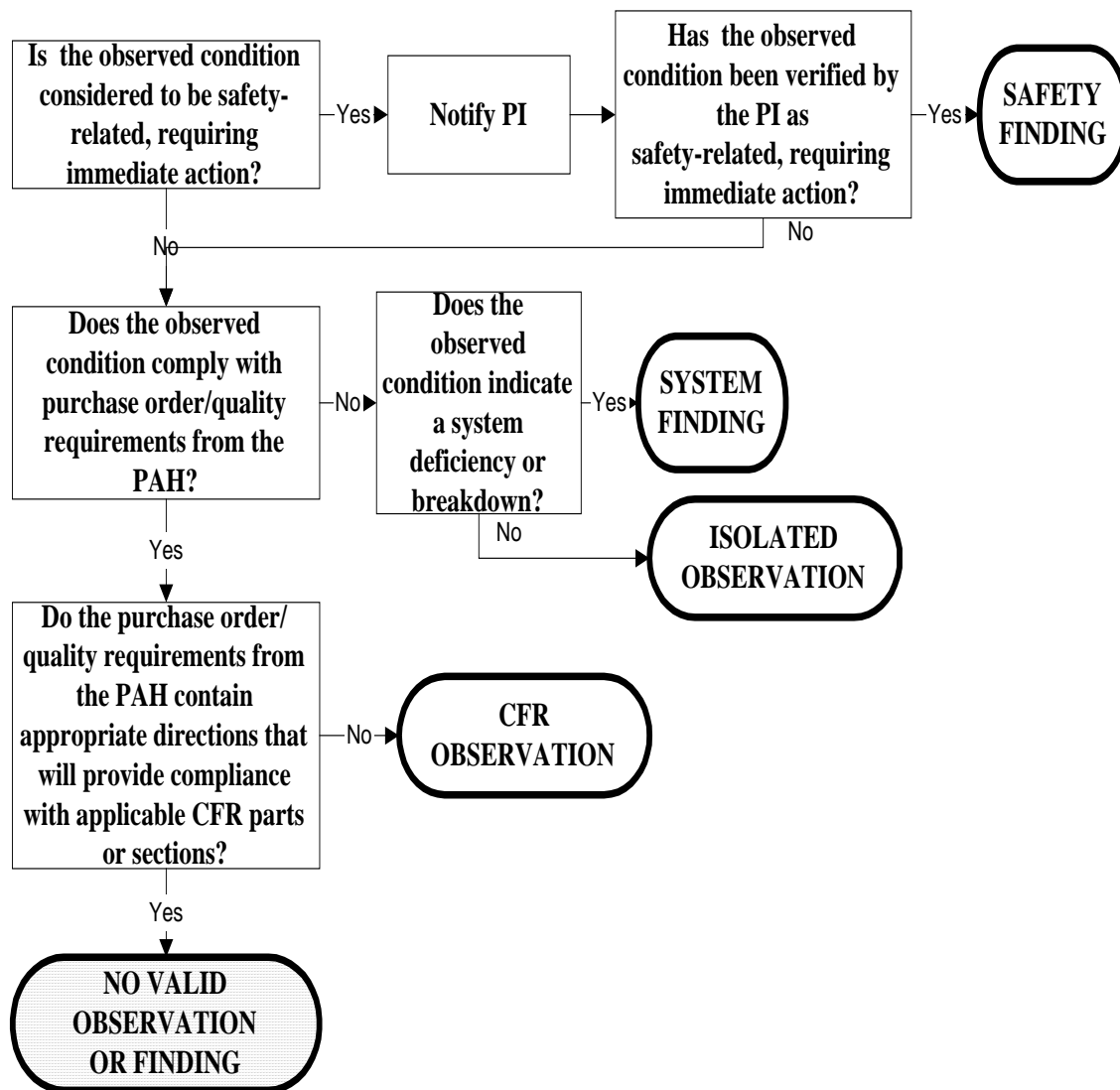
2. DESCRIPTION. Figures 1 through 5 provide processes to identify findings and observations for the various facility types encountered during a PI or DO audit.

**FIGURE 1. PC & TSO AUTHORIZATION HOLDERS, ASSOCIATE FACILITIES OF
PC & TSO AUTHORIZATION HOLDERS, AND DOA FACILITIES**



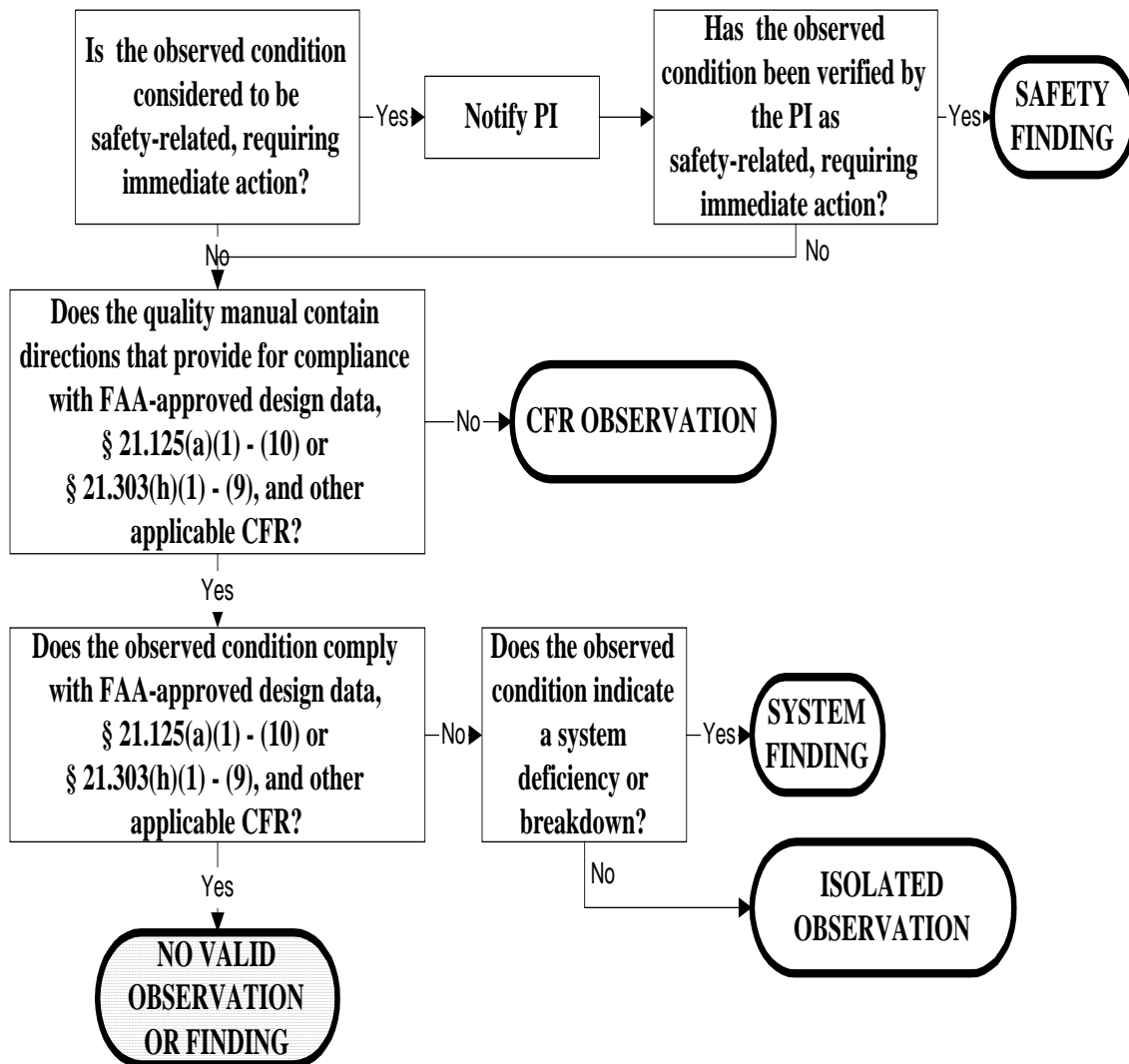
**APPENDIX 4. PROCESS FOR IDENTIFYING FINDINGS AND OBSERVATIONS
DURING A PI OR DO AUDIT (CONT'D)**

**FIGURE 2. SUPPLIERS TO PC & TSO AUTHORIZATION HOLDERS, AND
TO ASSOCIATE FACILITIES OF PC & TSO AUTHORIZATION HOLDERS**



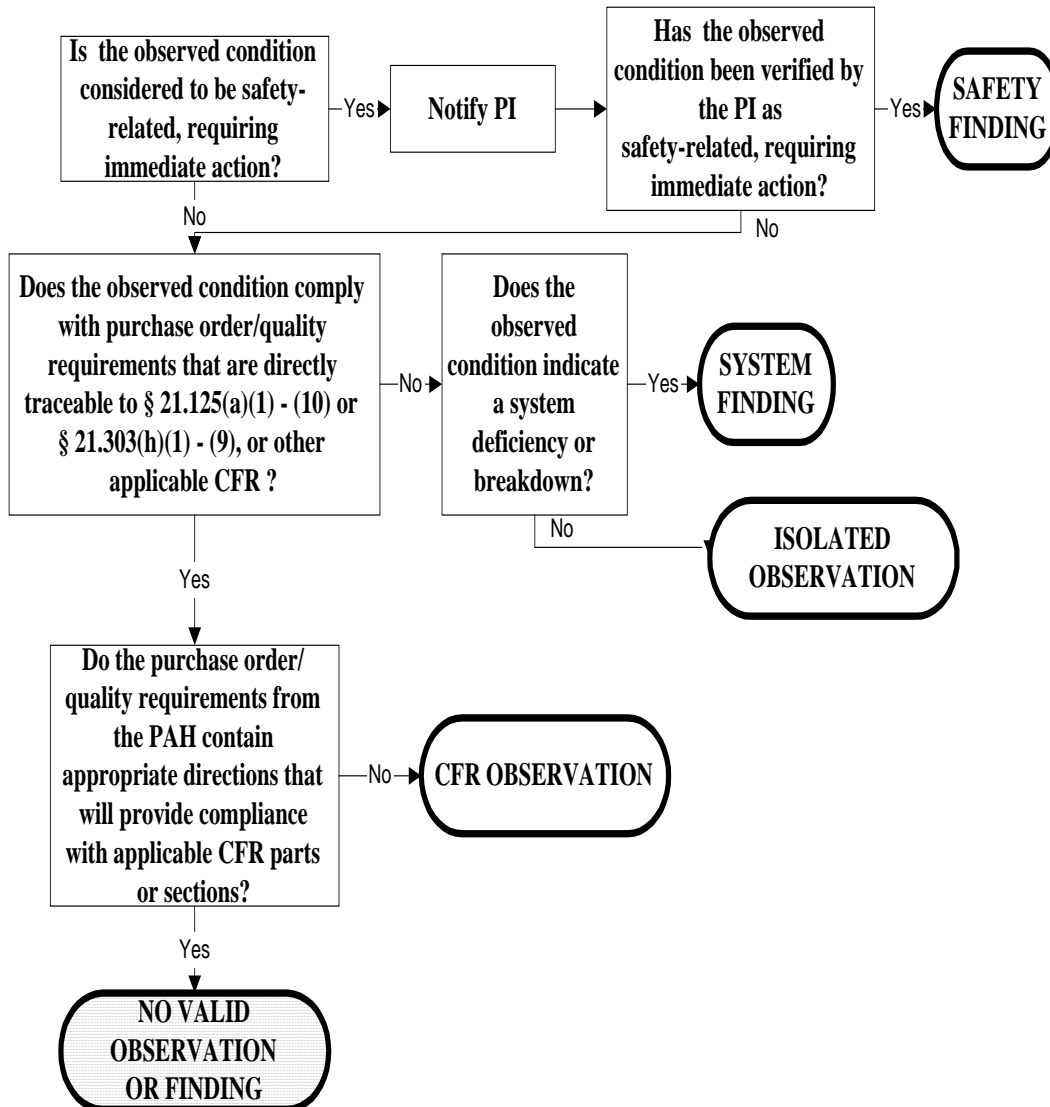
APPENDIX 4. PROCESS FOR IDENTIFYING FINDINGS AND OBSERVATIONS DURING A PI OR DO AUDIT (CONT'D)

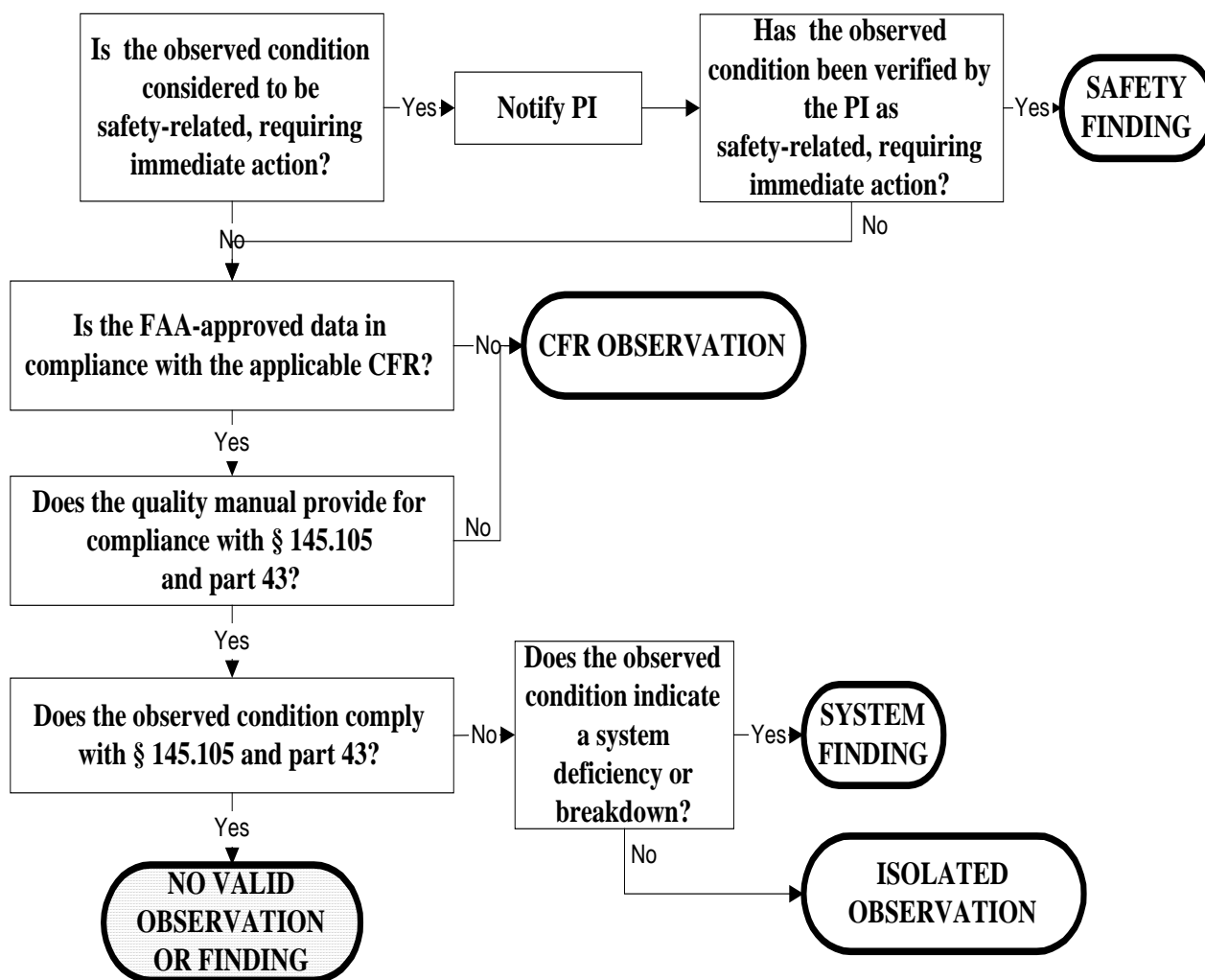
**FIGURE 3. APIS & PMA HOLDERS, AND ASSOCIATED
FACILITIES OF APIS & PMA HOLDERS**



**APPENDIX 4. PROCESS FOR IDENTIFYING FINDINGS AND OBSERVATIONS
DURING A PI OR DO AUDIT (CONT'D)**

**FIGURE 4. SUPPLIERS TO APIS & PMA HOLDERS, AND
TO ASSOCIATED FACILITIES OF APIS & PMA HOLDERS**



**APPENDIX 4. PROCESS FOR IDENTIFYING FINDINGS AND OBSERVATIONS
DURING A PI OR DO AUDIT (CONT'D)****FIGURE 5. SATELLITE MMF'S**

**APPENDIX 5. PREPARATION INSTRUCTIONS FOR FAA FORM 8120-6,
PRODUCTION CERTIFICATION PROJECTS STATUS LISTING**

1. PURPOSE. This appendix provides instructions for completing Form 8120-6. This form identifies the current production project activities at the Aircraft Certification directorates.

2. SPECIFIC GUIDANCE. Figure 1 shows Form 8120-6 with numbered blocks. Prepare the form by inserting in:

a. Block 1. The page number of the current page being completed after "PAGE." Upon completion of the project listing, enter the total pages completed after "PAGES."

b. Block 2. The date the form is completed.

c. Block 3. The name of the directorate for which the form is applicable.

d. Block 4. The project number for each of the projects for which the directorate is responsible.

e. Block 5. The name and address of the manufacturers associated with each project number.

f. Block 6. The type of production approval each listed manufacturer holds. Leave the block blank for a supplier.

g. Block 7. The product name and model number associated with each project number.

h. Block 8. The date that the last ACSEP evaluation was conducted at each manufacturer.

i. Block 9. Specific information relevant to the project.

(1) DAS Holders. Identify manufacturers who are also DAS holders by listing the authorization number and the date of the authorization.

(2) MMF Holders. Identify manufacturers who are also MMF holders by listing the authorization number and the date of authorization.


j. Block 10. The symbol for the responsible MIDO.

k. Block 11. The totals for each listed category. Record the totals on the first page only.

**APPENDIX 5. PREPARATION INSTRUCTIONS FOR FAA FORM 8120-6,
PRODUCTION CERTIFICATION PROJECTS STATUS LISTING (CONT'D)**

FIGURE 1. SAMPLE FAA FORM 8120-6

This form is a representation of the original form and not to be construed as the original form.

| | | | | | | | | |
|---|--|---|--------------------------------------|--------------------------------|---|-------------|-------------|-----------------------------------|
|  U.S. Department of Transportation Federal Aviation Administration | | PRODUCTION CERTIFICATION PROJECTS STATUS LISTING | | | | | | PAGE OF PAGES (1) |
| | | TOTALS (page 1 only) (11) | | | | | | REPORTING PERIOD (2) |
| | | PC PENDING | 2 | TC | 2 | MMF | 3 | January 2000 |
| | | PMA PENDING | 4 | PC | 10 | DMIR | 102 | REPORTING OFFICE (3) |
| | | TSO PENDING | 9 | PMA | 148 | DAR | 14 | Small Airplane Directorate |
| | | APIS PENDING | 0 | TSO | 96 | DOA | 2 | |
| | | SUPPLIERS | 48 | APIS | 2 | | | |
| PROJECT NUMBER | MANUFACTURER'S NAME AND ADDRESS | PRODUCTION APPROVAL BASIS | PRODUCT AND MODEL NO. | DATE LAST ACSEP | REMARKS | | D.O. | |
| (4) | (5) | (6) | (7) | (8) | (9) | | (10) | |
| PA4CE | Brown Aircraft Corp., Wichita, KS | PC | Airplane 142 | 3/4/98 | DOA | | ICT | |
| PE10CE | Scanz Motors Corp., Muskegon, MI | PC | Engines R1330 | 5/6/99 | DAS Authorization No. 25EA dtd 4/25/76 | | CLE | |
| PP7CE | Smith Aircraft Corp., Wichita, KS | PC | Propellers SA 36A42 | 9/2/98 | MMF-140-2 | | ICT | |
| PS33CE | BGC Aviation Co., Detroit, MI | | Process nitriding steel | N/A | Supplier to Dell Aircraft | | CLE | |
| PT3CE | Aero Equipment Corp., Huron, SD | TSO | Fuel flow meters | 8/8/99 | TSO No. C44A | | MSP | |

FAA Form 8120-6 (9-99)



U.S. Department
of Transportation
**Federal Aviation
Administration**

Directive Feedback Information

Please submit any written comments or recommendations for improving this directive, or suggest new items or subjects to be added to it. Also, if you find an error, please tell us about it.

Subject: FAA Order 8120.2B

To: Directive Management Officer, AIR-520

(Please check all appropriate line items)

- ☐ An error (procedural or typographical) has been noted in paragraph _____ on page _____.
- ☐ Recommend paragraph _____ on page _____ be changed as follows:
(attach separate sheet if necessary)
- ☐ In a future change to this directive, please include coverage on the following subject
(briefly describe what you want added):

☐ Other comments:

☐ I would like to discuss the above. Please contact me.

Submitted by: _____ Date: _____

FTS Telephone Number: _____ Routing Symbol: _____

FAA Form 1320-19 (8-89)